



29-10-2018 TO 04-11-2018 NOVEMBER Week 1

# OUR TEAM

## GENERAL STUDIES

















Mr. KOUSHIK

Mr. CHETAN PRAKASH

Mr. RAVI TEJA

Mr. SIVA KUMAR

Mr. PRANAY AGARWAL

Mr. NIKHIL SAREEN

Mr. UDAY SIMHA

Mr. VIJAY

## OPTIONALS



SOCIOLOGY Mr. SAROJ SAMAL







Mr. VINNAKOTA SRIKANTH

MATHEMATICS



Mr. PRIYESH SINGH SENGAR

GEOGRAPHY

## OTHER OPTIONALS

ANTHROPOLOGY

TELUGU LITERATURE

POLITICAL SCIENCE

HISTORY

# Contents

Topic Polity and Governance		Page No.	
2.	IMPRESS Scheme		
3.	Rashtriya Vayoshri Yojana		
4.	Central Adoption Resource Authority (CARA)		
<i>5</i> .	Vigilance Awareness Week		
6.	National Consumer Disputes Redressal Commission		
7.	Defence Acquisition Council (DAC)		
8.	Renaming of Jharsuguda Airport in Odisha		
9.	Location tracking devices, emergency buttons mandatory for		
	new public service vehicles		
Int	ernational Relations	9 - 12	
10.	Currency swap agreement between India and Japan		
11.	International Solar Alliance		
12.	United Nations World Tourism Organization (UNWTO)		
13.	Union Cabinet approves India-Morocco agreement on legal		
	assistance in criminal matters.		
Eco	onomy	13 - 17	
14.	Dispute Settlement Body		
15.	World's first sovereign Blue Bond by Seychelles		
16.	Section 7 of the RBI Act		
17.	World Bank's Doing Business Report, 2018		
Ge	ography and Environment	18 - 25	
18.	Global Agriculture Summit - 2018		
19.	Gujarat's first Mega Food Park		

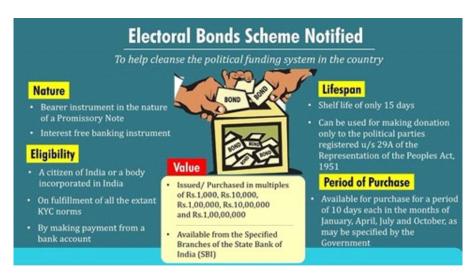
20.	Namami Gange programme	
21.	India's first container movement on inland waterways	
22.	WHO's First Global Conference on Air Pollution and Health	
23.	Deal inked for biofuel research	
24.	UN Habitat	
25.	Oceans heating faster: study	
Sci	ence & Technology	26 - 31
26.	CSIR develops Less Polluting Firecrackers	
27.	Crime and Criminal Tracking Network System	
28.	NASA's Kepler space telescope	
29.	Agni-I missile	
30.	Earth BioGenome Project	
31.	NASA's Dawn asteroid mission	
32.	ISRO's AstroSat	
Mi	scellaneous	32 - 33
33.	Statue of Unity	
34.	World Cities Day 2018	

# **Polity and Governance**

## 1. Electoral bond scheme

#### Context:

The Finance Ministry has authorized the sale of sixth tranche of electoral



bonds. The State Bank of India, will issue and encash them from November 1 to November 11 via its 29 authorized branches.

## **About Electoral bonds:**

Electoral bonds will allow donors to pay political parties using banks as an intermediary.

- **Key features:** Although called a bond, the banking instrument resembling promissory notes will not carry any interest. The electoral bond, which will be a bearer instrument, will not carry the name of the payee and can be bought for any value, in multiples of Rs 1,000, Rs 10,000, Rs 1 lakh, Rs 10 lakh or Rs 1 crore.
- **Eligibility:** As per provisions of the Scheme, electoral bonds may be purchased by a citizen of India, or entities incorporated or established in India. A person being an individual can buy electoral bonds, either singly or jointly with other individuals. Only the registered Political Parties which have secured not less than one per cent of the votes polled in the last Lok Sabha elections or the State Legislative Assembly are eligible to receive the Electoral Bonds.
- **Need:** The electoral bonds are aimed at rooting out the current system of largely anonymous cash donations made to political parties which lead to the generation of black money in the economy.

## 2. IMPRESS Scheme

#### Context:

Union HRD Ministry has launched the web portal of IMPRESS scheme with an aim to build a research ecosystem in educational institutions.

#### **IMPRESS Scheme:**

• The objective of Impactful Policy Research in Social Sciences (IMPRESS) is to identify and fund research proposals in social sciences with maximum impact on the governance and society.

- It will provide an opportunity for social science researchers in any institution in the country which includes all universities (central and state) and also a few private institutions meeting the requirement.
- The scheme will focus on broad thematic areas such as state and democracy, urban transformation; media, culture and society; employment, skills and rural transformation; governance; innovation and public policy; macro-trade and economic policy and social media and technology.
- Under IMPRESS, 1,500 research projects will be awarded for two years to support social science research in the higher educational institutions.
- The Indian Council of Social Science and Research (ICSSR) will be the project implementing agency.
- The scheme will be implemented till March, 2021.

# 3. Rashtriya Vayoshri Yojana

#### Context:

• An ADIP-RVY Distribution Camp for free of cost distribution of Aids



and Assistive Living Devices to Divyangjans and Senior Citizens in BPL category under Rashtriya Vayoshri Yojana (RVY) was organized by the Department of Empowerment of Persons with Disabilities (DEPwD), Ministry of Social Justice & Empowerment Department recently.

The event was organized by Artificial Limbs Manufacturing Corporation of India (ALIMCO), a PSU working under the aegis of Ministry of Social Justice and Empowerment.

# About Rashtriya Vayoshri Yojana:

- The Scheme aims at providing Senior Citizens, belonging to BPL category and suffering from any of the age related disability/infirmity Low vision, Hearing impairment, Loss of teeth and Locomotor disability, with such assisted-living devices which can restore near normalcy in their bodily functions, overcoming the disability/infirmity manifested.
- This is a Central Sector Scheme, fully funded by the Central Government. The expenditure for implementation of the scheme will be met from the "Senior Citizens' Welfare Fund".

- Under the scheme, free of cost distribution of the devices, commensurate with the extent of disability/infirmity that is manifested among the eligible senior citizens will take place.
- In case of multiple disabilities/infirmities manifested in the same person, the assistive devices will be given in respect of each disability/impairment.
- Beneficiaries in each district will be identified by the State Governments/UT Administrations through a Committee chaired by the Deputy Commissioner/District Collector.
- As far as possible, 30% of the beneficiaries in each district shall be women.

## Background:

- As per the Census figures of 2011, the population of senior citizens in India is 10.38 crore. More than 70% of the population of senior citizens live in rural areas of the country.
- A sizeable percentage (5.2%) of the senior citizens suffers from some sort of disabilities related to old age. Projections indicate that the number of elderly population will increase to around 173 million by 2026.

# 4. Central Adoption Resource Authority (CARA)

## Context:

Three years after the Missionaries of Charity (MoC) decided to stop giving children in its homes up for adoption, it has agreed to join hands with the country's nodal agency- Central Adoption Resource Authority (CARA) for adoption.

• In October 2015, soon after the Central government announced new rules for adoption and made it mandatory for all homes to be linked to the Child Adoption Resource Authority(CARA), which would be the only body in the country authorized to process adoptions, the Missionaries of Charity sought de-recognition of its homes.

#### **About CARA:**

- Central Adoption Resource Authority (CARA) is a statutory body of Ministry of Women & Child Development, Government of India.
- It functions as the nodal body for adoption of Indian children and is mandated to monitor and regulate in-country and inter-country adoptions.
- CARA is designated as the Central Authority to deal with inter-country adoptions in accordance with the provisions of the Hague Convention on Inter-country Adoption, 1993, ratified by Government of India in 2003.

- CARA primarily deals with adoption of orphan, abandoned and surrendered children through its associated /recognized adoption agencies.
- Missionaries of Charity is a Roman Catholic religious congregation established in 1950 by Mother Teresa.

## 5. Vigilance Awareness Week

#### Context:

The Ministry of Health and Family Welfare will observe the Vigilance Awareness Week from 29th October to 3rd November, 2018 as per the directions of Central Vigilance Commission (CVC), Government of India.

- The theme of the vigilance awareness this year is "Eradicate Corruption-Make a New India."
- During the week-long Vigilance Awareness campaign, various activities like seminars, debates and essay competitions will be organized in the Ministry to sensitize and motivate its officers and staff to remain vigilant and transparent in their work in order to eradicate corruption in all spheres of life.

## Background:

- The Central Vigilance Commission aims to promote integrity, transparency and accountability in public life. As part of its efforts to promote probity in public life and to achieve a corruption free society, CVC observes Vigilance Awareness Week every year.
- The observation of Vigilance Awareness Week creates greater awareness among public and encourages all the stakeholders to collectively participate in prevention of and fight against Corruption.

## **About CVC:**

- It is the apex vigilance institution. It was created via executive resolution (based on the recommendations of Santhanam committee) in 1964 but was conferred with statutory status in 2003.
- It submits its report to the President of India.
- **Composition:** Presently, the body consists of central vigilance commissioner along with 2 vigilance commissioners.
- **Appointment:** They are appointed by the President of India on the recommendations of a committee consisting of Prime Minister, Union Home Minister and Leader of the Opposition in Lok Sabha (if there is no LoP then the leader of the single largest Opposition party in the Lok Sabha).
- **Term:** Their term is 4 years or 65 years, whichever is earlier.
- **Removal:** The Central Vigilance Commissioner or any Vigilance Commissioner can be removed from his office only by order of the

President on the ground of proved misbehavior or incapacity after the Supreme Court, on a reference made to it by the President, has, on inquiry, reported that the Central Vigilance Commissioner or any Vigilance Commissioner, as the case may be, ought to be removed.

# 6. National Consumer Disputes Redressal Commission

## Context:

Department of Consumer Affairs & NCDRC had recently organized a conference to review functioning of State Commissions and District Fora.

- The Conference was attended by Presidents of State Commissions and Secretaries in charge of Consumer Affairs of States and UTs.
- The Conference is being held to discuss the issues relating to the functioning of the Consumer fora such as pendency of case and filling up of vacancies in the post of President and Members of the Commissions.
- The Conference is being held at a crucial time, when the Government has introduced a new Consumer Protection Bill, 2018 in the Lok Sabha repealing the Consumer Protection Act of 1986 with substantial changes for meeting the emerging challenges faced by consumers in the new markets.

## **About NCDRC:**

- The National Consumer Disputes Redressal Commission (NCDRC), India is a quasi-judicial commission in India which was set up in 1988 under the Consumer Protection Act of 1986.
- The commission is headed by a sitting or retired judge of the Supreme Court of India.

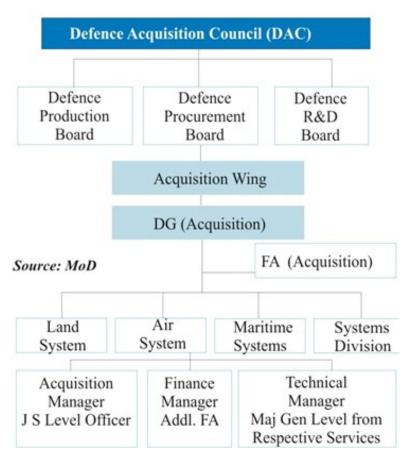
# Statutory provisions:

- Section 21 of Consumer Protection Act, 1986 posits that the National Consumer shall have jurisdiction to entertain a complaint valued more than one crore and also have Appellate and Revisional jurisdiction from the orders of State Commissions or the District fora as the case may be.
- Section 23 of Consumer Protection Act, 1986, provides that any person aggrieved by an order of NCDRC, may prefer an Appeal against such order to Supreme Court of India within a period of 30 days.

# 7. Defence Acquisition Council (DAC)

#### Context:

The Defence Acquisition Council (DAC) has accorded approval for the Mid Life Upgrade of 17 Dornier Aircraft of Indian Coast Guard (ICG) at an approximate cost of Rs. 950 crore. The upgrades will be carried out by M/s Hindustan Aeronautics Limited (HAL), the aircraft manufacturer of India.



- ICG is also the nodal agency in India for maritime pollution response. The Coast Guard has a fleet of Dornier aircraft which play a pivotal role in maritime surveillance.
- In order to enhance the capabilities of the fleet, DAC accorded approval for upgradation of these aircraft with state-of-the-art technology, spares, Special Maintenance Tools (SMT) and Special Test Equipment (STE).

# **Defence Acquisition Council** (DAC):

• To counter corruption and speed up decision- making in military procurement, the government of India in 2001

decided to set up an integrated DAC. It is headed by the Defence Minister.

- **Objective:** The objective of the DAC is to ensure expeditious procurement of the approved requirements of the Armed Forces, in terms of capabilities sought, and time frame prescribed, by optimally utilizing the allocated budgetary resources.
- **Functions:** The DAC is responsible to give policy guidelines to acquisitions, based on long-term procurement plans. It also clears all acquisitions, which includes both imported and those produced indigenously or under a foreign license.

# 8. Renaming of Jharsuguda Airport in Odisha

#### Context:

The Union Cabinet has approved renaming of Jharsuguda Airport in Odisha as "Veer Surendra Sai Airport, Jharsuguda".

- Veer Surendra Sai who is well-known freedom fighter and a tribal leader of Odisha.
- Born in 1809 in Khinda in Sambalpur, he was direct descendant of Madhukar Sai and was legally entitled to be crowned as king of Sambalpur after demise of king Maharaja Sai in 1827. But he was not acceptable to British power and ignored his claim for succession.
- He revolted against the British for throne after it allowed widow of Madhukar Sai Rani Mohan Kumari to succeed him and then followed

by succession of Narayan Singh, a descendant of royal family but born of low caste as king of Sambalpur.

• The aim of Surendra Sai's revolt was to drive the British out of Sambalpur. His revolution against the British commenced from 1827 when he was only 18 years of age and continued till 1862 when he surrendered and even after that, until he was finally arrested in 1864.

# 9. Location tracking devices, emergency buttons mandatory for new public service vehicles

#### Context:

The Union Ministry of Road Transport and Highways has notified that all new public service vehicles, except auto rickshaws and e-Rickshaws, registered on and after January 1, 2019 will have to be mandatorily equipped with Vehicle Location Tracking (VLT) and Emergency Buttons.

• In case of older public service vehicles, registered up to December 31, 2018, the respective State Governments will notify the date by which these vehicles have to install Vehicle Location Tracking Device and Panic Buttons.

# Operational procedure for implementation of VLT cum Emergency buttons:

- The States are required to ensure execution of this order and check fitment and functional status of the VLT device in the public service vehicles at the time of checking of the vehicles for fitness certification.
- Command and Control Centres will be setup by the State or VLT manufacturers or any other agency authorized by the State Government.
- These centres will provide interface such as state emergency response centre, the transport department or Regional Transport Offices and its designated agencies.
- These centres will also provide feed to the 'VAHAN' data base or the relevant data base of the State with regard to the over speeding device 'health status'.
- The details of each VLT device will be uploaded on the VAHAN database by the VLT device manufacturer using its secured authenticated access.

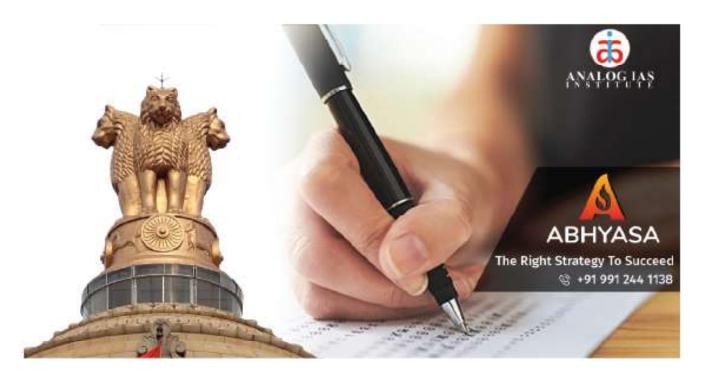
## Roles of various stakeholders involved:

- The VLT device manufacturers or their authorized dealers will install the VLT devices in public service vehicles and register the devices along with details of vehicle on the corresponding backend systems in real-time.
- The public service vehicle owners have to ensure that the VLT devices installed in their vehicles are in working condition and regularly send required data to the corresponding backend system.

- VLT device manufacturers will get their devices tested for conformity of production every year after the first certification from the testing agencies referred to in Rule126 of the Central Motor Vehicles Rules, 1989.
- The testing agencies will upload the details of the VLT devices certified by them on the VAHAN database.
- The State or Union Territories will publish Internet Protocol address (IP address) and Short Message Service Gateway (SMS gateway) details of their respective emergency response system where VLT devices will send the emergency alerts on press of emergency button.

### **About VAHAN:**

• VAHAN is a highly flexible and comprehensive system that takes care of all the activities of Vehicle Registration, leaving the Transport Department to deal with more important business issues. The software enables the processes at RTO/DTO/MLO/SDM involving vehicle registration, fitness, taxes, permits and enforcement to get computerized.



# **International Relations**

# 10. Currency swap agreement between India and Japan

#### Context:

Japan and India have entered into a \$75-billion currency swap arrangement that will bolster the country's firepower as it battles a steep drop in the



rupee's value. An agreement to this effect was signed during Prime Minister Narendra Modi's ongoing visit to Japan.

• The Agreement shall aid in bringing greater stability to foreign exchange & capital markets in India. The facility will serve as a second line of defence for the rupee after the \$393.5 billion of foreign exchange reserves that the Reserve Bank of India (RBI) has at its

disposal.

- Under the arrangement, India can acquire dollars from Japan in exchange for rupees. Conversely, Japan can also seek dollars from India in exchange for yen.
- The arrangement will be used only when required, and will help meet short-term liquidity mismatches.

# Significance of the agreement:

- The currency swap agreement is an important measure in improving the confidence in the Indian market and it would not only enable the agreed amount of capital being available to India, but it will also bring down the cost of capital for Indian entities while accessing the foreign capital market.
- The swap arrangement should aid in bringing greater stability to foreign exchange and capital markets in India. With this arrangement in place, prospects of India would further improve in tapping foreign capital for country's developmental needs. This facility will enable the agreed amount of foreign capital being available to India for use as and when the need arises.

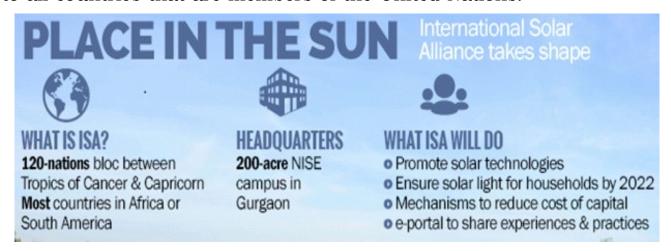
## What is this Currency Swap Arrangement (CSA)?

- This is an arrangement, between two friendly countries, which have regular, substantial or increasing trade, to basically involve in trading in their own local currencies, where both pay for import and export trade, at the pre-determined rates of exchange, without bringing in third country currency like the US Dollar.
- In such arrangements no third country currency is involved, thereby eliminating the need to worry about exchange variations.

## 11. International Solar Alliance

#### Context:

The Union Cabinet has given ex-post facto approval for moving a Resolution in the first Assembly of the International Solar Alliance (ISA) for amending the Framework Agreement of the ISA for opening up the ISA membership to all countries that are members of the United Nations.



#### **Benefits:**

- Opening the membership of the ISA will put solar energy in global agenda with the universal appeal for developing and deploying solar energy.
- It will make ISA inclusive, whereby all member countries that are members of the United Nations could become member.
- Expanding membership will lead to ISA initiative benefitting the world at large.

#### **About ISA:**

- The Paris Declaration establishes ISA as an alliance dedicated to the promotion of solar energy among its member countries.
- **Objectives:** The ISA's major objectives include global deployment of over 1,000GW of solar generation capacity and mobilization of investment of over US\$ 1000 billion into solar energy by 2030.
- As an action-oriented organization, the ISA brings together countries with rich solar potential to aggregate global demand, thereby reducing prices through bulk purchase, facilitating the deployment of existing

solar technologies at scale, and promoting collaborative solar R&D and capacity building.

• When the ISA Framework Agreement entered into force on December 6th, 2017, ISA formally became a de-jure treaty based International Intergovernmental Organization, headquartered at Gurugram, India.

# 12. United Nations World Tourism Organization (UNWTO)

## Context:

109th session of United Nations World Tourism Organization (UNWTO) Executive Council is being held in Manama, Bahrain. The Executive Council will discuss several topics on the agenda that are related to the development of global Tourism sector.

## **About UNWTO:**

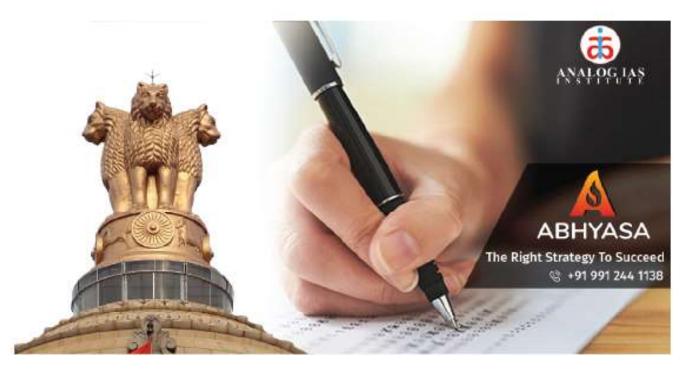
- The World Tourism Organization (UNWTO) is the United Nations agency responsible for the promotion of responsible, sustainable and universally accessible tourism.
- UNWTO's membership includes 158 countries, 6 Associate Members and over 500 Affiliate Members representing the private sector, educational institutions, tourism associations and local tourism authorities.
- As the leading international organization in the field of tourism, UNWTO promotes tourism as a driver of economic growth, inclusive development and environmental sustainability and offers leadership and support to the sector in advancing knowledge and tourism policies worldwide.
- UNWTO encourages the implementation of the Global Code of Ethics for Tourism, to maximize tourism's socio-economic contribution while minimizing its possible negative impacts, and is committed to promoting tourism as an instrument in achieving the Sustainable Development Goals (SDGs), geared towards reducing poverty and fostering sustainable development worldwide.
- UNWTO generates market knowledge, promotes competitive and sustainable tourism policies and instruments, fosters tourism education and training, and works to make tourism an effective tool for development through technical assistance projects in over 100 countries around the world.

# 13. Union Cabinet approves India-Morocco agreement on legal assistance in criminal matters.

#### Context:

The Union Cabinet has approved agreement between India and Morocco on mutual legal assistance in criminal matters. The Union Cabinet was chaired by Prime Minister Narendra Modi.

- The agreement will provide broad legal framework for bilateral cooperation between India and Morocco in investigation and prosecution of crime, restraint, tracing, forfeiture or confiscation or proceeds and instruments of crime.
- It will also increase effectiveness in investigation and prosecution of crime and provide necessary peaceful ambience which is pre-requisite for development of society as a whole.
- It will further be also instrumental in gaining better inputs and insights in modus operandi of terrorists and organized criminals, which in turn can be used to fine-tune policy decisions in the field of internal security....



# **Economy**

# 14. Dispute Settlement Body

#### Context:

The World Trade Organization's dispute settlement body has set up a panel to examine the US complaint against certain export-subsidy measures by India as both the sides failed to resolve the issue at consultation level.

- In March, the US dragged India to the global trade body's dispute settlement mechanism over export subsidies, saying that these incentives were harming the American companies.
- The US has challenged India's export subsidy programmes such as Merchandise Exports from India Scheme in the WTO, asserting that these initiatives harm its companies by creating an uneven playing field.

## **Dispute Settlement Body:**

- The General Council convenes as the Dispute Settlement Body (DSB) to deal with disputes between WTO members. Such disputes may arise with respect to any agreement contained in the Final Act of the Uruguay Round that is subject to the Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU).
- The DSB has authority to establish dispute settlement panels, refer matters to arbitration, adopt panel, Appellate Body and arbitration reports, maintain surveillance over the implementation of recommendations and rulings contained in such reports, and authorize suspension of concessions in the event of non-compliance with those recommendations and rulings.

### About MEIS- What is it?

- Merchandise Exports from India Scheme (MEIS) under Foreign Trade Policy of India (FTP 2015-20) is one of the two schemes introduced in Foreign Trade Policy of India 2015-20, as a part of Exports from India Scheme.
- Objective of Merchandise Exports from India Scheme (MEIS) as per Indian Foreign Trade Policy 2015-20 (FTP 2015-20) is to offset infrastructural inefficiencies and associated costs involved in export of goods/products, which are produced/manufactured in India, especially those having high export intensity, employment potential and thereby enhancing India's export competitiveness.

# 15. World's first sovereign Blue Bond by Seychelles

#### Context:

The Republic of Seychelles has launched the world's first Sovereign Blue Bond, a financial instrument designed to support sustainable marine and fisheries projects. With this, Seychelles became the first nation to pioneer such a novel financing instrument.

• The bond raised USD 15 million from international investors. The bond demonstrates the potential for countries to harness capital markets for financing the sustainable use of marine resources.

## Key features and uses of the Blue Bond:

- The Blue Bond is a part of an initiative that combines public and private investment to mobilize resources for empowering local communities and businesses. It will greatly assist Seychelles in achieving a transition to sustainable fisheries and safeguarding oceans.
- The Seychelles blue bond is partially guaranteed by a USD 5 million guarantee from the World Bank (IBRD) and is further supported by a USD 5 million concessional loan from the Global Environment Facility (GEF) which will partially cover interest payments for the bond.
- Proceeds from the bond will be utilized for the expansion of marine protected areas, improved governance of priority fisheries and the development of the Seychelles' blue economy.
- Proceeds from the bond will also contribute to the World Bank's South West Indian Ocean Fisheries Governance and Shared Growth Program, which supports countries in the region to sustainably manage their fisheries and increase economic benefits from their fisheries sectors.
- Grants will be provided through the Blue Grants Fund and will be managed by the Seychelles' Conservation and Climate Adaptation Trust (SeyCCAT).
- Loans will be provided through the Blue Investment Fund and will be managed by the Development Bank of Seychelles (DBS).

#### Points to be noted:

- The Seychelles is an archipelagic nation consisting of 115 granite and coral islands in the Indian Ocean, off East Africa.
- As one of the world's biodiversity hotspots, Seychelles is balancing the need to develop economically and protect its natural resources.
- After tourism, the fisheries sector is the most important industry in the country, contributing significantly to annual GDP and employing 17 percent of the population. Fish products make up around 95% of the total value of domestic exports.

## 16. Section 7 of the RBI Act

#### Context:

In an unprecedented move, the government has reportedly invoked Section 7 of the Reserve Bank of India Act.

• The issue of invoking Section 7 (1) of RBI Act came up during the hearing of Allahabad high court in a case filed by the Independent



- The autonomy for the central bank, within the framework of the RBI Act, is an essential and accepted governance requirement, says the Ministry
- Both the government and the RBI have to be guided by public interest and the requirements of the economy

- Government has never made public the subject matter of its consultations.
   Only the final decisions taken are communicated, the Ministry adds
- Centre writes to the RBI on reclassifying NPAs for the power sector, the RBI's dividends to the Centre and seeking dilution of PCA norms to help increase lending to MSMEs

Power Producers Association of India challenging RBI's 12 February circular. The high court, in August, said the government could issue directions to RBI under Section 7 of RBI Act.

• Against this backdrop, the government issued a letter to the RBI governor seeking his views on exemption for power companies in relation to the 12 February circular.

Another instance was when the government on 10 October sought the governor's views on using RBI's capital reserves for providing liquidity.

## What does Section 7 of the RBI Act say?

- According to Section 7 of the RBI Act the central government is empowered to issue directions it considers necessary for public interest to the central bank from time to time after consultation with the RBI governor.
- "The Central Government may from time to time give such directions to the Bank as it may, after consultation with the Governor of the Bank, consider necessary in the public inter-est," Section 7(1) of the RBI Act reads.
- The sub-section under Section 7 further reads, "Subject to any such directions, the general superintendence and direction of the affairs and business of the Bank shall be entrusted to a Central Board of Directors which may exercise all powers and do all acts and things which may be exercised or done by the Bank."
- Section 7(3) reads, "Save as otherwise provided in regulations made by the Central Board, the Governor and in his absence the Deputy Governor nominated by him in this behalf, shall also have powers of general superintendence and direction of the affairs and the business of the Bank, and may exercise all powers and do all acts and things which may be exercised or done by the Bank."
- However, complete implication of the section cannot be determined because it has never been invoked in the history of independent India.

# Why is Section 7 seen as an extreme measure?

• This section has never been used in till now. It was not used even when the country was close to default in the dark days of 1991, nor in the aftermath of the 2008 global financial crisis. It is not clear how

this Section operates since it has never been used. The aggressive move could scandalise a section of academia and experts, while raising questions about the government's intentions and the impact on RBI's autonomy.

# 17. World Bank's Doing Business Report, 2018

#### Context:

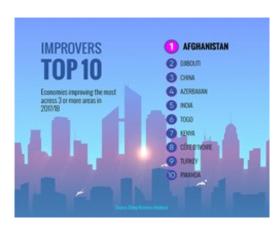
The World Bank has released its latest Doing Business Report (DBR, 2019).

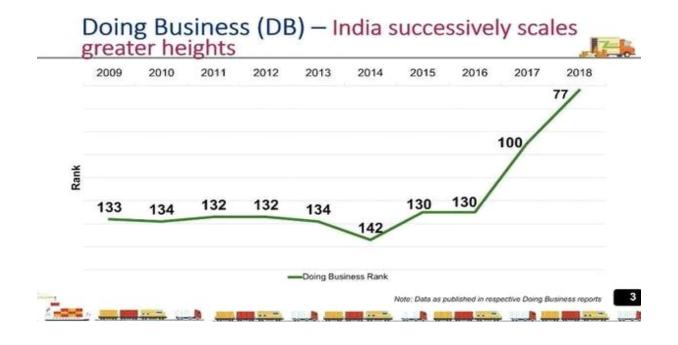


The report ranks 190 economies based on how easy it is to do business there, taking into account trading regulations, property rights, contract enforcement, investment laws, the availability of credit and a number of other factors. The first report was published in 2003.

### Performance of various countries:

- The top five overall are: New Zealand, Singapore, Denmark, Hong Kong and Korea. The U.S. ranks 8th, down from 6th last year.
- As per the latest report, Afghanistan had moved up the most, by 16 spots, from 183th in last year's ranking to 167th this year.
- China and India two economies with the largest populations — are among top 10 improvers this year.
- Afghanistan, Djibouti, Azerbaijan, Togo, Kenya, Côte d'Ivoire, Turkey and Rwanda rounded out the top 10 most







improved list. In addition, Djibouti and India are the only economies to make the 10 top most improved list for the second consecutive year.

# Performance of India:

• India climbed 23 spots from a year ago to rank **77** out of 190 countries in the

World Bank's latest report on the ease of doing business.

- It was also among the top 10 most improved economies along with countries such as China, Djibouti and Azerbaijan.
- The ease of doing business in India improved notably after a series of reforms made it easier for companies to get construction permits, pay taxes and trade across borders.

## Areas of improvement:

• Entrepreneurs were able to start a business more easily after India integrated multiple application forms into a general incorporation form. Reforms also "streamlined the process of obtaining a building permit and made it faster and less expensive to obtain a construction permit."

Indicator	Rank in 2017	Rank in 2018	Improvement in ranking
Construction permits	181	52	129
Trading across borders	146	80	66
Starting a business	156	137	19
Getting credit	29	22	7
Getting Electricity	29	24	5
Enforcing contracts	164	163	1
Overall rank	100	77	23

- Last year, the country amended its insolvency and bankruptcy code
  which prevented willful defaulters from buying up any of their own
  troubled assets at discounted rates. That strengthened access to credit
  as "secured creditors are now given absolute priority over other claims
  within insolvency proceedings".
- Other areas of improvement included simplifying India's complex tax structure that made it easier to pay taxes. Initiatives implemented under the National Trade Facilitation Action Plan 2017-2020 improved the efficiency of cross-border trading and reduced the time taken to meet compliance requirements.

# **Geography and Environment**

## 18. Global Agriculture Summit – 2018

#### Context:

11th Global Agriculture Leadership Summit & Awards were recently organized by Indian Council of Food and Agriculture (ICFA) with support of Ministry of Agriculture and Farmers' Welfare; Ministry of Food Processing Industries and Ministry of Commerce.

- 11th Global Leadership Awards were announced and the Agriculture Year Book 2018 was launched.
- Leveraging upon its past experiencing, ICFA has launched 1st World Agriculture Prize and MS Swaminathan Global Dialogue on Climate Change and Food Security to come up with blue print for sustained agriculture growth in changing face of climate and weather extremes.

## Global Agriculture Summit:

- Global Agriculture Summit is an annual event organized by Indian Council of Food and Agriculture to discuss the broad scenario and trends in agriculture sector, trade, technology, investments and the need for appropriate policy initiatives on the part of the Government by bringing together eminent personalities of Indian and global agriculture on one platform.
- The summit aims to discuss the broad issues in agriculture and agribusiness, and measures to empower farmers and unleash the potential of India's agriculture sector by deliberating upon national and global challenges for farmers, agribusinesses and startups, the issue of employment and agriculture development and bring out a road map for the same.

# **About Global Leadership Awards:**

• ICFA had established the Agriculture Leadership Awards in 2008 to recognize the leadership roles played by individuals and institutions positively impacting the lives of farmers and rural masses.

#### Notable facts and winners:

- Andhra Pradesh CM N. Chandrababu Naidu was awarded the Policy Leadership Award for his proactive policies for uplifting the farming community by focusing on irrigation, investment, global partnerships, marketing initiatives and zero budget natural farming.
- Best States in Various Fields: The best fisheries State Award was given Jharkhand for efforts in augmenting the production potential of the state in fisheries segment. Further, Bihar is Best Animal Husbandry State, Nagaland is best Horticultural state, Gujarat is Best Agriculture State and Haryana has been conferred with Program Leadership Award.

### **About ICAF:**

• Indian Council of Food and Agriculture is an apex think tank for addressing policy issues concerning farmers, food and agro industries. ICFA is serving as global platform for trade facilitation, partnerships, technology, investments and agribusiness services.

# 19. Gujarat's first Mega Food Park

### Context:

Gujarat's first Mega Food Park has been inaugurated in Surat.

• Promoted by M/s Gujarat Agro Infrastructure Mega Food Park Pvt. Ltd the Park is located at Village Shah and Vasravi, Taluka Mangrol, District Surat. It will provide direct and indirect employment to 5,000 persons and benefit about 25,000 farmers.

## **About Mega Food Parks:**

- Ministry of Food Processing Industries is implementing Mega Food Park Scheme in the country.
- The Scheme of Mega Food Park aims at providing a mechanism to link agricultural production to the market by bringing together farmers, processors and retailers so as to ensure maximizing value addition, minimizing wastages, increasing farmers' income and creating employment opportunities particularly in rural sector.
- These food parks give a major boost to the food processing sector by adding value and reducing food wastage at each stage of the supply chain with particular focus on perishables.
- A maximum grant of R50 crore is given for setting up a MFP, in minimum 50 acres of contiguous land with only 50% contribution to the total project cost.

# Mode of operation:

- The Scheme has a cluster based approach based on a hub and spokes model. It includes creation of infrastructure for primary processing and storage near the farm in the form of Primary Processing Centres (PPCs) and Collection Centres (CCs) and common facilities and enabling infrastructure at Central Processing Centre (CPC).
- The PPCs are meant for functioning as a link between the producers and processors for supply of raw material to the Central Processing Centres.
- CPC has need based core processing facilities and basic enabling infrastructure to be used by the food processing units setup at the CPC. The minimum area required for a CPC is 50 acres.
- The scheme is demand-driven and would facilitate food processing units to meet environmental, safety and social standards.

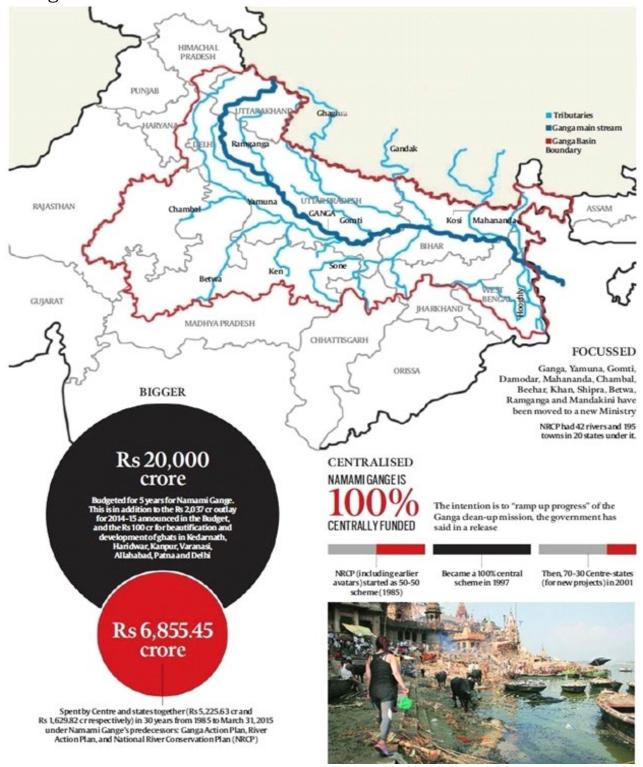
# 20. Namami Gange programme

#### Context:

The Executive Committee (EC) of the National Mission for Clean Ganga has approved 12 projects worth Rs. 929 Crore under the Namami Gange programme in its 16th meeting held recently.

## **About Namami Gange Programme:**

 Namami Gange programme was launched as a mission to achieve the target of cleaning river Ganga in an effective manner with the unceasing involvement of all stakeholders, especially five major Ganga basin States – Uttarakhand, Uttar Pradesh, Jharkhand, Bihar and West Bengal.



• The programme envisages: River Surface Cleaning, Sewerage Treatment Infrastructure, River Front Development, Bio-Diversity, Afforestation and Public Awareness.

## Implementation:

- The program would be implemented by the National Mission for Clean Ganga (NMCG), and its state counterpart organizations i.e., State Program Management Groups (SPMGs).
- In order to improve implementation, a three-tier mechanism has been proposed for project monitoring comprising of a) High level task force chaired by Cabinet Secretary assisted by NMCG at national level, b) State level committee chaired by Chief Secretary assisted by SPMG at state level and c) District level committee chaired by the District Magistrate.
- The program emphasizes on improved coordination mechanisms between various Ministries/Agencies of Central and State governments.

# 21. India's first container movement on inland waterways

## **Context:**

Inland Waterways Authority of India (IWAI) will transport container cargo



belonging to the food and beverage giant PepsiCo (India) from Kolkata to Varanasi on river Ganga (National Waterway-1).

- •Significance: This would be the country's first container movement on inland vessel post-independence.
- •PepsiCo (India) will move 16 containers equivalent to 16 truckloads- filled with food and snacks in the vessel MV RN Tagore which will reach Varanasi in 9-10 days. MV RN Tagore will make its return journey with fertilizers belonging to IFFCO that will be

procured from its Phulpur plant near Allahabad.

- The government is developing NW-1 (River Ganga) under Jal Marg Vikas Project (JMVP) from Haldia to Varanasi (1390 Km) with the technical and financial assistance of the World Bank at an estimated cost of Rs 5369 crore. The project would enable commercial navigation of vessels with capacity of 1500-2,000 DWT.
- States covered under NW-1: States: Uttar Pradesh, Bihar, Jharkhand, West Bengal.

## Benefits of container movement on inland waterways:

Container cargo transport comes with several inherent advantages.
 Even as it reduces the handling cost, allows easier modal shift, reduces pilferages and damage, it also enables cargo owners to reduce their carbon footprints.

#### **About IWAI:**

• Inland Waterways Authority of India (IWAI) is the statutory authority in charge of the waterways in India. Its headquarters is located in Noida, UP. It does the function of building the necessary infrastructure in these waterways, surveying the economic feasibility of new projects and also administration.

# 22. WHO's First Global Conference on Air Pollution and Health Context:

The first Global Conference on Air Pollution and Health will be held at WHO Headquarters in Geneva.

• **Organizers:** The conference is being held in collaboration with UN Environment, World Meteorological Organization (WMO), the Secretariat of the UN Framework Convention on Climate Change (UNFCCC), the Climate and Clean Air Coalition to Reduce Short-Lived

# FIRST WHO GLOBAL CONFERENCE ON AIR POLLUTION AND HEALTH

IMPROVING AIR QUALITY, COMBATTING CLIMATE CHANGE - SAVING LIVES



Climate Pollutants (CCAC) and the United Nations Economic Commission for Europe (UNECE).

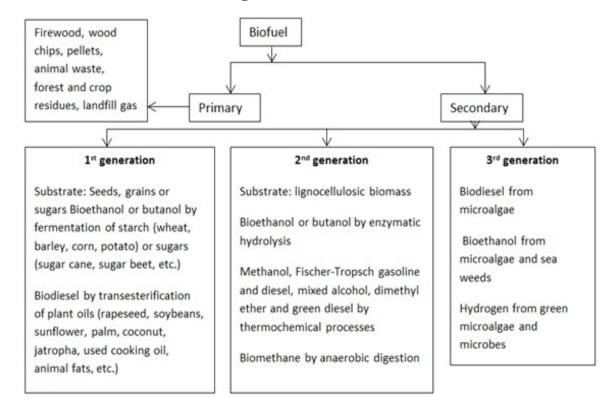
- Participants will include Ministers of Health and Environment and other national government representatives; representatives of intergovernmental agencies, health professionals, other sectors (e.g. transport, energy, etc.), as well as from research, academia and civil society.
- **Background:** The conference responds to a World Health Assembly mandate to combat one of the world's most significant causes of premature death, causing some 7 million deaths annually. Air pollution in most cities exceeds recommended WHO Air Quality levels and household air pollution is a leading killer in poor rural and urban homes. Up to 1/3 of deaths from stroke, lung cancer and heart disease are due to air pollution.

## 23. Deal inked for biofuel research

### Context:

The Department of Biotechnology (DBT) has signed a three-year, <sup>1</sup> 11 crore deal with The Energy and Research Institute to set up a centre to produce "advanced biofuels and bio-commodities."

- This is the fifth such dedicated centre for bioenergy-research and development set up by the Department. The others are located at the Indian Agricultural Research Institute, New Delhi; the Indian Institute of Technology-Guwahati; Transtech Green Power Limited, Jaipur; and the Oil and Natural Gas Energy Centre in the National Capital Region.
- The bio-centre would be focussed on not only developing technology but also commercialising it.



• Other than fuel, by-products envisaged at the TERI-DBT Centre include food, feed, nutrition supplements, bio-plastics and novelty speciality chemicals.

## Significance of Biofuels:

• Globally, biofuels have caught the attention in last decade and it is imperative to keep up with the pace of developments in the field of biofuels. Biofuels in India are of strategic importance as it augers well with the ongoing initiatives of the Government such as Make in India, Swachh Bharat Abhiyan, Skill Development and offers great opportunity to integrate with the ambitious targets of doubling of Farmers Income, Import Reduction, Employment Generation, Waste to Wealth Creation.

## **Classification of Biofuels:**

- 1st generation biofuels are also called conventional biofuels. They are made from things like sugar, starch, or vegetable oil. Note that these are all food products. Any biofuel made from a feedstock that can also be consumed as a human food is considered a first generation biofuel.
- 2nd generation biofuels are produced from sustainable feedstock. The sustainability of a feedstock is defined by its availability, its impact on greenhouse gas emissions, its impact on land use, and by its potential to threaten the food supply. No second generation biofuel is also a food crop, though certain food products can become second generation fuels when they are no longer useful for consumption. Second generation biofuels are often called "advanced biofuels."
- 3rd generation biofuels are biofuel derived from algae. These biofuels are given their own separate class because of their unique production mechanism and their potential to mitigate most of the drawbacks of 1st and 2nd generation biofuels.

## 24. UN Habitat

### Context:

The National Mission for Clean Ganga partnered with UN Habitat recently organized a policy dialogue- 'Urban Cafe: River for Habitat' in New Delhi on the occasion of World Cities Day 2018.

• Experts in the sector got together to discuss the deep association that rivers have with various aspects of human civilization – our cities, our economy and various facets of our daily lives, the challenges to maintaining healthy river ecosystems and ways to deal with the same.

#### **About UN Habitat:**

• The United Nations Human Settlements Programme (UN–Habitat) is the United Nations agency for human settlements and sustainable urban development. It was established in 1978 as an outcome of the First UN Conference on Human Settlements and Sustainable Urban Development (Habitat I) held in Vancouver, Canada in 1976.

- It is mandated by the United Nations General Assembly to promote socially and environmentally sustainable towns and cities with the goal of providing adequate shelter for all. It is a member of the United Nations Development Group.
- The mandate of UN-Habitat derives from the Habitat Agenda, adopted by the United Nations Conference on Human Settlements (Habitat II) in Istanbul, Turkey, in 1996. The twin goals of the Habitat Agenda are adequate shelter for all and the development of sustainable human settlements in an urbanizing world.
- As an inter-governmental policy making and decision making body, the Governing Council of UN-Habitat seeks to promote integral and comprehensive approach to human settlements, assist the countries and regions in addressing human settlement problems and strengthen cooperation among all countries on human settlement issue.
- UN-Habitat reports to the United Nations General Assembly

## 25. Oceans heating faster: study

#### Context:

Scientists from the Intergovernmental Panel on Climate Change (IPCC) have released their assessment on the health of world oceans.

## Highlights of the study:

- For each of the last 25 years, oceans had absorbed heat energy equivalent to 150 times the amount of electricity mankind produces annually. That is 60% higher than what previous studies showed.
- The world's oceans have absorbed 90% of the temperature rise caused by man-made carbon emissions.

#### Concerns:

• Oceans cover more than two thirds of the planet's surface and play a vital role in sustaining life on Earth.

#### How was it measured?

Scientists focussed on two gases found naturally in the atmosphere
 — Oxygen and carbon dioxide. Both gases are soluble in water, but
 the rate at which water absorbs them decreases as it warms. By
 measuring atmospheric oxygen and CO2 for each year, scientists were
 able to more accurately estimate how much heat oceans had absorbed
 on a global scale.

## Way ahead:

 Mankind must once again revise down its carbon footprint, with emissions needing to fall 25% compared to previous estimates. The result significantly increases the confidence we can place in estimates of ocean warming and therefore helps reduce uncertainty.

# Science & Technology

## 26. CSIR develops Less Polluting Firecrackers

#### Context:

CSIR develops Less Polluting Firecrackers named – safe water releaser (SWAS), safe minimal aluminium (SAFAL) and safe thermite cracker (STAR).

- These crackers have unique property of releasing water vapour and / or air as dust suppressant and diluent for gaseous emissions and matching performance in sound with conventional crackers.
- SWAS crackers eliminates usage of (KNO3) Potassium nitrate and Sulphur with consequent reduction in particulate matter (30-35%) SO2 and NOx. It has matching sound intensity with commercial crackers in the range of 105-110 dBA. SWAS has been tested for shelf life upto 3 weeks with consistent performance.
- STAR eliminates usage of KNO3 and S with consequent reduction in

particulate matter (35-40%), SO2 and NOx. It has matching sound intensity with commercial crackers in the range of 105-110 dBA.

• SAFAL has minimal usage of

in the range of 105-110 dBA.

• SAFAL has minimal usage of aluminium (only in flash powder for initiation) with consequent significant reduction in particulate matter (35-40 %) compared to commercial crackers. It has matching sound intensity with commercial crackers in the range of 110-115 dBA.



### **Benefits:**

• Indian Fireworks industry is over 6000-crore worth of annual turnover and provides employment opportunities to over 5 lakh families directly or indirectly.

• This endeavour of CSIR aims at addressing the pollution concerns at the same time protecting the livelihoods of those involved in this trade. These Firecrackers are not only environment friendly but 15-20 % cheaper than the conventional ones.

# 27. Crime and Criminal Tracking Network System

#### Context:

Conference on "CCTNS-Good practices and success Stories" is being held in New Delhi.

- Crime and Criminal Tracking Network and Systems (CCTNS) is a project initiated in June 2009 which aims at creating a comprehensive and integrated system for enhancing the efficiency and effectiveness of policing at the Police Station level.
- This will be done through adoption of principles of e-Governance, and creation of a nationwide networked infrastructure for evolution of IT-enabled state-of-the-art tracking system around "investigation of crime and detection of criminals".
- CCTNS is a Mission Mode Project (MMP) under the National e-Governance Plan of Govt. of India.

## What it does?

- The Project will interconnect about 15000 Police Stations and additional 5000 offices of supervisory police officers across the country and digitize data related to FIR registration, investigation and charge sheets in all Police Stations.
- It will not only automate Police functions at Police station and higher levels but will also create facilities and mechanism to provide public services like registration of online complaints, ascertaining the status of case registered at the police station, verification of persons etc.
- In 2015, an additional objective of establishing a basic platform for an Inter-operable Criminal Justice System (ICJS) was added to the Project.

## **Benefits:**

- The Full implementation of the Project with all the new components would lead to a Central citizen portal having linkages with State level citizen portals that will provide a number of citizen friendly services like Police Verification for various purposes including passport verification, reporting a crime including cyber-crime and online tracking of the case progress etc.
- The project will enable National level crime analytics to be published at increased frequency, which will help the policy makers as well as lawmakers in taking appropriate and timely action, it will also enable Pan-India criminal/accused name search in the regional language for improved inter-state tracking of criminal movement. This would lead to development of a national database of crimes and criminals.

# 28. NASA's Kepler space telescope

#### Context:

The Kepler space telescope has run out of fuel and will be retired after a 9-1/2-year mission.

• Currently orbiting the sun 156 million km from the earth, the spacecraft will drift further from our planet when mission engineers turn off its radio transmitters.

## **About Kepler Mission:**

- Launched in 2009, the Kepler mission is specifically designed to survey our region of the Milky Way galaxy to discover hundreds of Earth-size and smaller planets in or near the habitable zone and determine the fraction of the hundreds of billions of stars in our galaxy that might have such planets.
- Since the launch of the observatory in 2009, astronomers have discovered thousands of extra-solar planets, or exoplanets, through this telescope alone. Most of them are planets that are ranging between the size of Earth and Neptune (which itself is four times the size of Earth). Most of these planets were discovered in a small region of the constellation Cygnus, at which Kepler was pointed for the first four years of its mission.
- As of March 2018, Kepler had found 2,342 confirmed planets; add potential planets, and its find of exoworlds stands at 4,587.

## What is the habitable zone?

- If a planet is too close to the star it orbits, any water on the surface quickly boils off, forming a steam atmosphere. If the planet is too far from the star, any water on the surface freezes.
- The habitable zone (or "Goldilocks zone") is the range of orbital distances from a star at which liquid water can exist on the surface of a planet.
- This range of distances changes depending on the size and temperature of the star.
- Earth is in the habitable zone of the sun one of the reasons our planet has liquid water like oceans and lakes.

# 29. Agni-I missile

#### Context:

India has successfully conducted the night trial of the indigenously developed nuclear capable Agni-I ballistic missile off the Odisha coast. The surface-to-surface missile test was test-fired as part of a user-trial from the Abdul Kalam Island off Odisha coast.

# About Agni -I:

- Agni-I is a short-range ballistic missile developed by DRDO of India under the Integrated Guided Missile Development Program.
- Agni-I missile has a specialised navigation system which ensures it reaches the target with a high degree of accuracy and precision.
- It is sleek single-stage missile, powered by solid propellants developed after the Kargil War to fill the gap between 250 km range of Prithvi-II and 2,500 km range of Agni-II.

- Agni-I was developed by advanced systems laboratory, the premier missile development laboratory of the DRDO.
- The 15-metre-long Agni-I, which can carry payloads up to 1000 kg, has already been inducted into the Indian Army.

# 30. Earth BioGenome Project

### Context:

International biologists have launched Earth BioGenome Project (EBP)- an ambitious project to read all the DNA in each of the world's known animal, plant and fungal species over the next 10 years, sequencing 1.5m different genomes at an estimated cost of \$4.7bn.

## About the Earth BioGenome Project (EBP):

- The Earth BioGenome Project plans to record the genomes the DNA blueprint of life of 1.5 million species of animal, plant, protozoa and fungi within a decade.
- So far, 19 research institutions around the world have signed up to take part in the EBP and more plan to join.
- They expect to read the full DNA sequence of all the world's eukaryotic species organisms whose cells have a nucleus enclosed by membranes. These are animals, plants, fungi and protozoa, which encompass all of life except simple microbes (bacteria and archaea).
- Participating institutions aim to raise the required funds from governments, foundations and charities. The project's first phase producing a reference genome for each of the 9,000 taxonomic families of eukaryotic life will require \$600m, of which about one-third has already been provided.
- UK participants, led by the Wellcome Sanger Institute, will sequence the genetic codes of all 66,000 species known to inhabit Britain in a £100m national effort called the Darwin Tree of Life, as well as helping the broader international project.

#### Need:

• The target of 1.5m genomes represents all eukaryotic species known and catalogued by science. Biologists say that many more remain undiscovered, with the real total estimated at 10m to 15m species. But they are disappearing fast as a result of human activity, in what scientists are calling Earth's sixth great extinction; the fifth was the asteroid impact that wiped out dinosaurs 65m years ago.

# Significance:

 The blueprints for all living species will be a tremendous resource for new discoveries, understanding the rules of life, how evolution works, new approaches for the conservation of rare and endangered species, and provide new resources for researchers in agricultural and medical fields.

• So far, only 3,300 eukaryotic species have had their DNA fully sequenced, 0.2% of the target. With strong international co-ordination, adequate funding and continuing rapid technological progress, 1.5m genomes could be achieved by 2028.

## 31. NASA's Dawn asteroid mission

#### In News:

Dawn, a NASA spacecraft that launched 11 years ago and studied two of the largest objects in the asteroid belt, has ended its mission after running out of fuel.

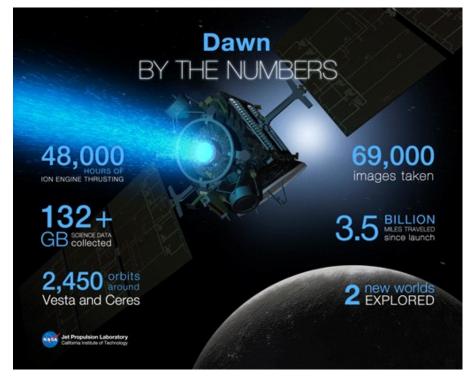
• Scientists have known for about a month that Dawn was essentially out of hydrazine, the fuel that kept the spacecraft's antennae oriented toward Earth and helped turn its solar panels to the Sun to recharge.

## **Accomplishments:**

• Dawn became the only spacecraft ever to orbit a cosmic body in the main asteroid belt between Mars and Jupiter in 2011 when it began

circling the asteroid Vesta.

- Then it moved on to the dwarf planet Ceres in 2015, becoming the first spacecraft to visit a dwarf planet and the only spacecraft to orbit one.
- The unmanned spacecraft has travelled 4.3 billion miles (6.9 billion kilometers) since its launch in 2007. It is expected to remain



in orbit around Ceres for decades, but will no longer be able to communicate with Earth.

#### **About the Dawn Mission:**

• NASA's Dawn mission will study the asteroid Vesta and dwarf planet Ceres, celestial bodies believed to have accreted early in the history of the solar system. The mission will characterize the early solar system and the processes that dominated its formation. • Dawn is the only mission ever to orbit two extraterrestrial targets. It orbited giant asteroid Vesta for 14 months from 2011 to 2012, then continued on to Ceres, where it has been in orbit since March 2015.

## 32. ISRO's AstroSat

#### Context:

Indian astrophysicists have discovered large ultraviolet lobes and jets, hurled out from a dying star- NGC 6302, popularly called the Butterfly Nebula, using data from AstroSat, the space observatory launched by the

India's first Multiwavelength Space Observatory

ASTROSAT

The 5 telescopes of the Astrosat

1. Large Area X-ray Proportional
Counter (LAXPC)

2. Soft X-ray Telecope (SXT)

3. Cadmium-Zinc-Telluride Imager (CZTI)

4. Scanning Sky Monitor (\$5M)

5. Ultra Violet Imaging Telescope (UVIT)

Indian Space Research Organisation (ISRO) in 2015.

- A planetary nebula is formed when a star like our Sun - or a few times heavier – is in its dying days. The term, misnomer now, coined by astronomers in the 19th century since the nebula looked like planets through their telescopes.
- When hydrogen and helium fuel that kept the star shining gets exhausted, the star expands in size and becomes a red giant star. Such stars shed most of their outer layers which expands outwards, and the inner core, made of carbon and oxygen, shrinks further and becomes hotter. This hot core shines brightly in the ultraviolet, and ionizes the expanding gas. This

glowing ionized gas is what is seen as a planetary nebula.

#### **About ASTROSAT:**

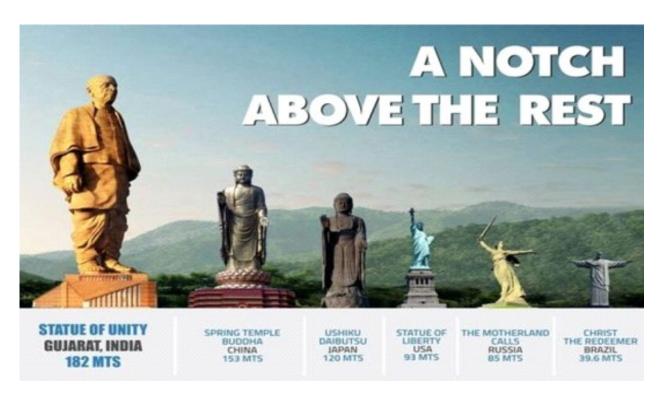
- ASTROSAT is India's first dedicated multi wavelength space observatory. This scientific satellite mission endeavours for a more detailed understanding of our universe.
- ASTROSAT is designed to observe the universe in the Visible, Ultraviolet, low and high energy X-ray regions of the electromagnetic spectrum simultaneously with the help of its five payloads.
- Astrosat aims at understanding the high energy processes in binary star systems containing neutron stars and black holes, to estimate magnetic fields of neutron stars, to study star birth regions and high energy processes in star systems lying beyond the Milky Way galaxy.
- This mission has put ISRO in a very exclusive club of nations that have space-based observatories. Only the United States, European Space Agency, Japan and Russia have such observatories in space.

## **Miscellaneous**

## 33. Statue of Unity

#### Context:

The Prime Minister will dedicate the world's tallest statue, the "Statue of Unity", to the Nation, today on October 31, 2018.



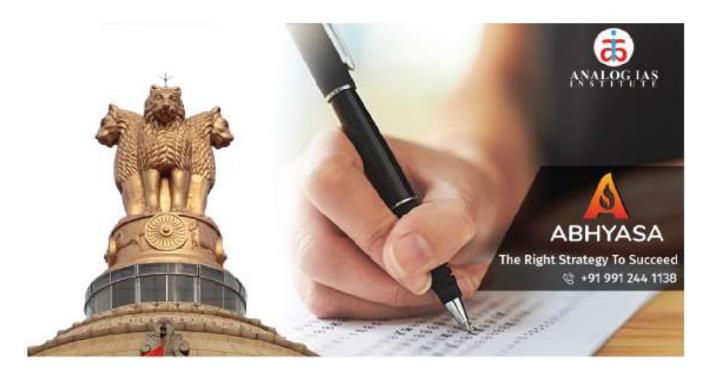
# **About Statue of Unity**

- It is located facing the Narmada Dam, at Kevadiya in Gujarat
- The monument along with its surroundings occupies over 20,000 square metres, and is surrounded by a 12 square km artificial lake.
- It is the world's tallest statue with the height of 182 metres (597 ft) designed by Ram V. Sutar and designed and executed by Larsen & Toubro.
- The total height of the statue from its base will be 240-metre consisting base level of 58 meters and statue of 182 meters.
- It is constructed with steel framing, reinforced cement concrete, and bronze cladding.
- The statue needed 75,000 cubic metres of concrete, 5,700 tonnes of steel structure, 18,500 tonnes of reinforced steel rods, 22,500 tonnes of bronze sheets for construction.
- Sardar Vallabhbhai Patel Rashtriya Ekta Trust (SVPRET), a special purpose vehicle was established by the Government of Gujarat for its construction and the outreach programme was carried out across India starting December 2013.

- Rashtriya Ekta Diwas was observed on 31st October across the nation. It marks the occasion of the birth anniversary of Sardar Vallabhbhai Patel.
- The government, in 2015, decided to observe Sardar Patel Jayanti Day as Ekta Diwas. This occasion provides an opportunity to re-affirm the inherent strength and resilience of the nation to withstand the threats to its unity, integrity and security.

# 34. World Cities Day 2018

- World Cities Day is celebrated every year on October 31st.
- Theme: "Building sustainable and resilient cities".
- **Significance:** The Day is expected to greatly promote the international community's interest in global urbanization, push forward cooperation among countries in meeting opportunities and addressing challenges of urbanization, and contributing to sustainable urban development around the world.



# OUR BRANCHES

# Hyderabad : Indira Park

Domalguda

Ph: 040-27620440, +91 991 244 1137

Email: ias.analog@gmail.com

## Hyderabad : Madhapur

100 Ft Road, Ayyappa Society,

Ph: 040-48522831, +91 990 856 4438

Email: ias.analog@gmail.com

## Vizag: Dwaraka Nagar

Office-3, 3rd Floor, GK Towers,

Ph: 0891-2546686, +91 998 513 6789

Email: ias.analogvizag@gmail.com

# Hyderabad : Ashok Nagar

Above OBC Bank

Ph: 8121046686, +91 991 244 1138

Email: ias.analog@gmail.com

# New Delhi: Old Rajinder Nagar

57/12, Third Floor,

Ph: 011-49785868, +91 880 028 3132 Email: ias.analog.delhi@gmail.com

## Guntur: Arundalpet

2nd Floor, Eluri Mansion 2/1,

Ph: +91 996 335 6789

Email: ias.analog.guntur@gmail.com

# **OUR RESULTS - 2017**

