



# HYPERLOOP

October 2018

CURRENT AFFAIRS FOR ESE 2019

[www.iesgeneralstudies.com](http://www.iesgeneralstudies.com)

[www.adapala-academy.com](http://www.adapala-academy.com)

All rights are reserved. No part of this document may be reproduced for Commercial or any other purpose without the prior permission of IES GS

Contents

1. 1. NATIONAL AND INTERNATIONAL ISSUES..... 6

**1.1 ECONOMIC DEVELOPMENT..... 6**

**Online system for Limited Liability Partnership (LLP) incorporation ..... 6**

**The Monetary Policy Committee (MPC) ..... 7**

**Sovereign Gold Bond Scheme ..... 7**

**IMF ..... 8**

**BRICS Rating Agency..... 9**

**Global Competitiveness Index for 2018 ..... 11**

**Payments Regulatory Board ..... 12**

**Electoral Bond Scheme 2018..... 13**

**Revised Consumer Price Index Numbers on Base year..... 14**

**Ease of Doing Business..... 16**

**1.2 INDUSTRIAL DEVELOPMENT ..... 17**

**Udyam Abhilasha ..... 17**

**World’s first Hyperloop passenger capsule unveiled..... 17**

**National Council for Vocational Education and Training ..... 18**

**Special Central Government Package for Footwear and Leather Sector ..... 18**

**National Electronics Policy 2018..... 19**

**Centre for the Fourth Industrial Revolution..... 19**

**Project Arya ..... 20**

**GI tags ..... 20**

**The World Diamond Council meet..... 20**

**Ban of BS-IV vehicles ..... 21**

**Indian Railways' first engine-less train ..... 23**

**World’s highest railway line ..... 23**

**Mahatma Gandhi Jayanthi Celebrations ..... 24**

**Swachhata Awards 2018 ..... 24**

**Karnataka’s Good Samaritan Bill ..... 26**


**Global Skills Park ..... 26**

World Bank’s Human Capital Index .....	27
International Day of Rural Women.....	27
Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) .....	28
Transformation of Aspirational District Programme .....	28
National Monitoring Framework on Sustainable Development Goals .....	29
Indian Institute of Skill(IISs) .....	30
Scheme for Promotion of Academic and Research Collaboration (SPARC) .....	31
<b>2.ENERGY AND ENVIRONMENT .....</b>	<b>31</b>
<b>2.1 ENERGY .....</b>	<b>31</b>
Methanol Fuel .....	31
First assembly of the International Solar Alliance .....	32
Russia to set up more nuclear reactors in India .....	33
India's first 2G biofuel plant.....	33
First smoke-free State .....	34
Germany rolls out world’s first hydrogen train.....	35
<b>2.1 ENVIRONMENT .....</b>	<b>36</b>
World Habitat Day.....	36
Proposed Global Geoparks.....	36
Threat to Eastern Ghats .....	36
Climate Change Report: IPCC .....	37
Tiny spheres to trap water contaminants developed .....	38
National Dolphin Research Centre (NDRC).....	38
E-Flow for Ganga .....	40
Titli and LUBAN cyclonic storms .....	40
Air Quality Early Warning System for Delhi .....	41
Water Disinfection System “Oneer” .....	42
Landslides prevention .....	43
3rd Decadal International year of Reefs-2018 .....	45
<b>3. ICT .....</b>	<b>45</b>
Digi Yatra .....	45


Space Applications Center .....	46
100k Genome Asia Project .....	46
Space Explorations .....	47
The Ask Disha .....	47
#Self4 Society App .....	48
National Strategy for Artificial Intelligence .....	48
National Initiative for Development and Harnessing Innovations(NIDHI) .....	49
World's smallest optical gyroscope .....	50
<b>KEY INITIATIVES OF GOVERNMENT .....</b>	<b>50</b>
Bharat Net .....	50
Digi Locker .....	51
Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA) .....	51
SWAYAM .....	51
Shaala Sarathi .....	52
Swayam Prabha .....	52
Electronic National Agriculture Market (e-NAM) .....	52
Crime and Criminal Tracking Network and Systems (CCTNS) .....	52
<b>GENERAL KNOWLEDGE .....</b>	<b>53</b>
Military Exercises .....	53
Awards .....	53

## TEST SERIES ESE 2019 GS&APTITUDE


---




**Integrated with  
the study plan**




**Individual and  
Cumulative Tests**



**Detailed  
Solutions**



**Simulating Actual  
Exam Environment**



**Detailed Post  
Exam Analysis**

---

**Registrations are now open**  
[testseries.adapala-academy.com](http://testseries.adapala-academy.com)

## VIDEO LECTURES

---

**ESE General Studies & Aptitude**

Study from

- Anywhere**
- Anytime**
- Any number of times in an year**

**Features**

- Extensive syllabus coverage
- One year doubts support
- Free test series
- Money back guarantee



[www.iesgeneralstudies.com/video-lectures/](http://www.iesgeneralstudies.com/video-lectures/)

## 1. 1. NATIONAL AND INTERNATIONAL ISSUES

### 1.1 ECONOMIC DEVELOPMENT

#### Online system for Limited Liability Partnership (LLP) incorporation

Ministry of Corporate Affairs has launched a process re-engineering by making incorporation of Limited Liability Partnership (LLP) through a complete online system through a web service titled “RUN-LLP (Reserve Unique Name – Limited Liability Partnership)”

The amendments:

- ‘RUN-LLP (Reserve Unique Name – Limited Liability Partnership)’ to replace the erstwhile Form 1 .
- New integrated form- FiLLiP (Form for incorporation of Limited Liability Partnership) replacing the erstwhile Form 2 combining therein 3 services i.e.

i.Name reservation

ii.Allotment of Designated Partner Identification Number (DPIN/DIN).

iii.Incorporation of the LLP

About LLP:

- LLP is an alternative corporate business form that gives the benefits of limited liability of a company and the flexibility of a partnership.
- The LLP can continue its existence irrespective of changes in partners.
- It is capable of entering into contracts and holding property in its own name.
- The LLP is a separate legal entity, is liable to the full extent of its assets but liability of the partners is limited.

#### Commodity derivatives contract in BSE

The Bombay Stock Exchange became the first stock exchange in the country to launch commodity derivatives contract in gold and silver.

Highlights:

- Till date, commodity derivatives contract are available only on MCX and NCDEX, the two specialised commodity derivatives exchanges in the country.
- The launch will help in efficient price discovery, reduce timeline and make it cost-effective.

About derivative:

- A derivative is a contract between two parties which derives its value/price from an underlying asset.

- The value of the underlying asset is bound to change as the value of the underlying assets keep changing continuously. Generally stocks, bonds, currency, commodities and interest rates form the underlying asset.
- The most common types of derivatives are futures, options, forwards and swaps.

About BSE:

- The Bombay Stock Exchange (BSE) is an Indian stock exchange located at Dalal Street, Mumbai.
- It is Asia's first stock exchange.
- It claims to be the world's fastest stock exchange, with a median trade speed of 6 microseconds

### The Monetary Policy Committee (MPC)

About MPC:

- The RBI has a government-constituted Monetary Policy Committee (MPC) which is tasked with framing monetary policy using tools like the repo rate, reverse repo rate, bank rate, cash reserve ratio (CRR).
- Composition:
  1. The committee will have six members. Of the six members, the government will nominate three. No government official will be nominated to the MPC.
  2. The other three members would be from the RBI with the governor being the ex-officio chairperson. Deputy governor of RBI in charge of the monetary policy will be a member, as also an executive director of the central bank.
- Decision: Decisions will be taken by majority vote with each member having a vote.
- The RBI Governor will chair the committee. The governor, however, will not enjoy a veto power to overrule the other panel members, but will have a casting vote in case of a tie.
- The government nominees to the MPC will be selected by a Search-cum-Selection Committee under Cabinet Secretary with RBI Governor and Economic Affairs Secretary and three experts in the field of economics or banking or finance or monetary policy as its members.
- Members of the MPC will be appointed for a period of four years and shall not be eligible for reappointment

### Sovereign Gold Bond Scheme

Highlights:

- Sovereign Gold Bonds (SGBs) are government securities denominated in grams of gold
- The bonds are to be issued by RBI.
- They will be restricted for sale to resident Indian entities including individuals, HUFs, Trusts, Universities and Charitable Institutions.
- They will be denominated in multiples of gram(s) of gold with a basic unit of 1 gram.
- The tenor of the bond will be for a period of 8 years
- The interest on Gold Bonds shall be taxable.
- The capital gains tax is exempted.
- Bonds can be used as collateral for loans and are eligible for Statutory Liquidity Ratio purposes in Banks.
- Bonds will be tradable on stock exchanges.

**Advantages:**

- Absolute safety
- Extra income
- Indexation benefit
- Tradability
- Collateral

**IMF****About IMF:**

- The International Monetary Fund (IMF) is an organization of 189 countries
- It is working to foster
  1. Global monetary cooperation
  2. Secure financial stability
  3. Facilitate international trade
  4. Promote high employment and sustainable economic growth, and
  5. reduce poverty around the world.
- The IMF is governed by and accountable to all the member countries.

**IMF on India's Growth:**

- India will regain the tag of the world's fastest growing major economy
- Important reforms have been implemented in the recent years, including the Goods and Services Tax (GST), the inflation-targeting framework, the Insolvency and Bankruptcy Code.
- Steps to liberalise foreign investment and make it easier to do business

**IMF quota**



- An individual member country's quota broadly reflects its relative position in the world economy.
- Quotas are denominated in Special Drawing Rights (SDRs), a unit of currency account.

**Multiple roles of quotas:**

- Quotas determine the maximum amount of financial resources a member is obliged to provide to the IMF.
  - Quotas are a key determinant of the voting power in IMF decisions. Votes comprise one vote per SDR 100,000 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:
    1. The size of an overall quota increase and
    2. The distribution of the increase among the members.

**BRICS Rating Agency****Highlights of feasibility study :**

- It should be completely independent and private sector led.
- The need is felt by the emerging markets and developing economies for a rating methodology that takes into account the country circumstances of these economies

**About BRICS:**

- BRICS is an acronym for Brazil, Russia, India, China and South Africa and is an association of these countries.
- They have been identified as the fastest growing economies in the world.
- The group has a bank called as the New Development Bank whose primary focus remains lending money for infrastructure development among the countries.

- Relations among the members are mainly on the basis of non-interference, equality and mutual benefit.

### Unified Payment Interface

The Reserve Bank of India has released the guidelines for interoperability between prepaid payment instruments (PPIs) such as wallets and cards.

The guidelines:

- The wallets could implement interoperability through the Unified Payment Interface (UPI).
- The RBI allowed PPIs to issue cards using authorised card networks such as Mastercard, Visa or Rupay.

#### **Benefits:**

- Boosting the e-wallet segment
- Will ensure the safety and accuracy of the transfer of money
- Effective and efficient interoperability
- To reach the under-banked and unbanked segment

About UPI:

- The Unified Payments Interface (UPI) is an instant real-time payment system developed by National Payments Corporation of India
- The interface is regulated by the Reserve Bank of India
- It integrates multiple bank accounts into a single mobile application (of any participating bank), merging several banking features, seamless fund routing & merchant payments into one hood.
- “Peer to Peer” collect request can be scheduled and paid as per requirement and convenience.

### How is it unique?

- Immediate money transfer through mobile device round the clock 24\*7 and 365 days.
- Single mobile application for accessing different bank accounts.
- Single Click 2 Factor Authentication
- Virtual address of the customer for Pull & Push provides for incremental security with the customer not required to enter the details such as Card no, Account number; IFSC etc.
- Bill Sharing with friends.
- Merchant Payment with Single Application or In-App Payments.
- Utility Bill Payments, Over the Counter Payments, Barcode (Scan and Pay) based payments.

**Participants in UPI:**

- Payer PSP
- Payee PSP
- Remitter Bank
- Beneficiary Bank
- NPCI
- Bank Account holders
- Merchants

**UPI - Benefits to the Ecosystem participants**

Benefits for banks:

- Single click Two Factor authentication
- Universal Application for transaction
- Leveraging existing infrastructure
- Safer, Secured and Innovative
- Payment basis Single/ Unique Identifier
- Enable seamless merchant transactions

Benefits for end Customers:

- Round the clock availability
- Single Application for accessing different bank accounts
- Use of Virtual ID is more secure, no credential sharing
- Single click authentication
- Raise Complaint from Mobile App directly

Benefits for Merchants:

- Seamless fund collection from customers - single identifiers
- No risk of storing customer's virtual address like in Cards
- Tap customers not having credit/debit cards
- Suitable for e-Com & m-Com transaction
- Resolves the COD collection problem
- Single click 2FA facility to the customer - seamless Pull
- In-App Payments (IAP)

**Global Competitiveness Index for 2018**

The World Economic Forum has released Global Competitiveness Index for 2018.

India's performance:

- India was ranked as the 58th most competitive economy with a score of 62.0 on the Global Competitiveness Index 2018.
- India ranked highest among South Asian countries.

- India leads the region in all other areas of competitiveness except for health, education and skills.
- India's greatest competitive advantages include its market size and innovation.

**Areas that India needs to improve:**

- Labour market (in particular workers rights)
- Product market (in particular trade tariffs) and
- Skills (in particular pupil-teacher ratio)

**Global performance:**

- The United States topped the list with a score of 85.6, followed by Singapore and Germany at the second and the third positions respectively.
- Among the BRICS economies, China topped the.

**About Global Competitiveness Index:**

- It is a composite indicator that assesses the set of factors that determine an economy's level of productivity.
- The GCI 4.0 framework is built around 12 main drivers of productivity - Institutions, Infrastructure; Technological readiness; Macroeconomic context; Health; Education and skills; Product market; Labour market; Financial system; Market size; Business dynamism; and Innovation.

### Payments Regulatory Board

The Reserve Bank of India (RBI) has opposed the move to have an independent Payments Regulatory Board (PRB).

RBI recommendations:

- The Watal Committee had recommended the establishment of the PRB within the overall structure of the RBI.
- Since banks are regulated by the RBI and the payment system is bank-dominated in India

Centre's proposal:

- The seven-member government panel was headed by Subhash Chandra Garg.
- The panel 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

About PRB:

- It aimed at fostering competition, consumer protection, systemic stability and resilience in the payments sector

### UN model on cross-border insolvency

The Insolvency Law Committee (ILC) has recommended the adoption of the United Nations Commission on International Trade Law (UNCITRAL) Model Law of Cross Border Insolvency, 1997

Highlights:

- To ensure that there is no inconsistency between the domestic insolvency framework and the proposed cross border insolvency framework.

Benefits:

- Enhance ease of doing business
- Mechanism of cooperation between countries and
- Protect creditors in the global scenario.

UNCITRAL Model Law of Cross Border Insolvency, 1997

- The model law gives precedence to domestic proceedings and protection of public interest.
- It facilitates greater confidence generation among foreign investors, adequate flexibility for seamless integration with the domestic Insolvency Law and a robust mechanism for international cooperation.

Principles of UNCITRAL Model Law:

1. Direct access to foreign insolvency professionals and foreign creditors to participate in or commence domestic insolvency proceedings against a defaulting debtor.
2. Recognition of foreign proceedings & provision of remedies.
3. Cooperation between domestic and foreign courts & domestic and foreign insolvency practitioners.
4. Coordination between two or more concurrent insolvency proceedings in different countries.

### Electoral Bond Scheme 2018

Government of India has notified the Electoral Bond Scheme 2018.

Provisions of the scheme:

- Only the Political Parties registered under Section 29A of the Representation of the People Act, 1951 and which secured not less than one per cent of the votes polled in the last General Election to the House of the People or the Legislative Assembly of the State, shall be eligible to receive the Electoral Bonds.

## How to donate to parties

Electoral bonds will be available for purchase for 10 days each in the months of January, April, July and October

- Such bonds can be purchased by any Indian citizen or a body incorporated in India
- Purchaser must pay from KYC-compliant bank account
- Can be bought for any amount in multiples of ₹1,000, ₹ 10,000, ₹1 lakh, ₹10 lakh, and ₹1 crore
- Bonds will not carry the name of the payee and will be valid for 15 days
- Can only be bought from specified SBI branches
- Can be used for donation to a registered political party only
- Can be encashed only through that party's bank account



### Benefits:

- Transparency in electoral funding
- Cashless transactions
- Easy and Quick medium of electoral donations
- Accountability by political parties
- Reduces illegal donations to political parties

### Revised Consumer Price Index Numbers on Base year

- The Central Statistics Office (CSO), Ministry of Statistics and Programme Implementation has revised the Base Year of the Consumer Price Index (CPI).

### Key Changes:

- The base year revised from 2010 to 2012.

### About CPI:



- A consumer price index (CPI) measures changes in the price level of market basket of consumer goods and services purchased by households.
- It is a statistical estimate constructed using the prices of a sample of representative items whose prices are collected periodically.
- The index is usually computed monthly, or quarterly in some countries, as a weighted average of sub-indices for different components of consumer expenditure.



Ease of Doing Business


**DOING BUSINESS 2019**  
 Training for Reform
 
#DoingBiz

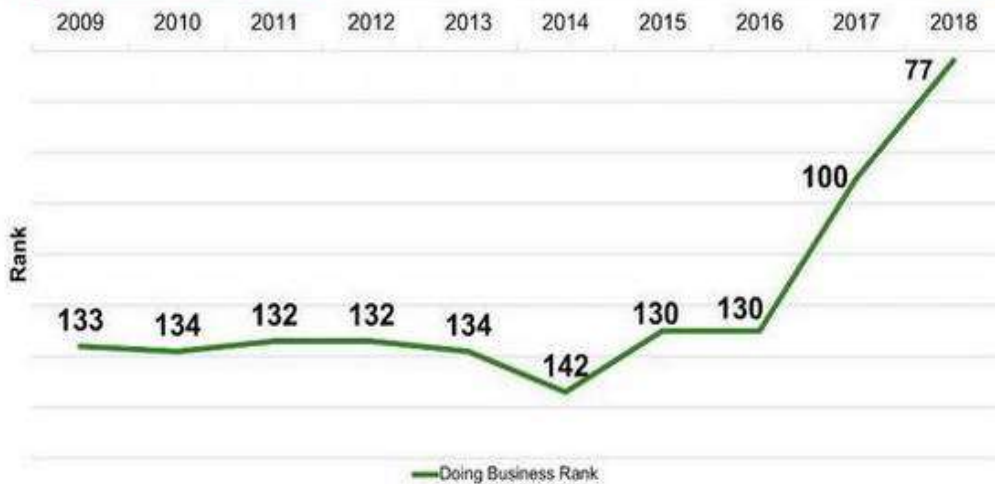
**What is measured?**




 WORLD BANK GROUP
 

[www.doingbusiness.org](http://www.doingbusiness.org)

## Doing Business (DB) – India successively scales greater heights



Note: Data as published in respective Doing Business reports



## 1.2 INDUSTRIAL DEVELOPMENT

### Udyam Abhilasha

Small Industries Development Bank of India (SIDBI), had launched a National Level Entrepreneurship Awareness Campaign, Udyam Abhilasha.

#### Highlights:

- The campaign would create and strengthen cadre of more than 800 trainers
- To provide entrepreneurship training to the aspiring youths across these districts thus encouraging them to enter the admired segment of entrepreneurs.
- To inspire rural youth in aspirational districts to be entrepreneurs by assisting them to set up their own enterprise
- To impart trainings through digital medium across the country
- To create business opportunities for CSC VLEs
- To focus on women aspirants in these aspirational districts to encourage women entrepreneurship
- To assist participants to become bankable and avail credit facility from banks to set up their own enterprise.

#### About SIDBI:

- Small Industries Development Bank of India (SIDBI), is the Principal Financial Institution for the Promotion, Financing, Development and Coordination of the Micro, Small and Medium Enterprise (MSME) sector
- SIDBI meets the financial and developmental needs of the MSME sector with a Credit+ approach to make it strong, vibrant and globally competitive.
- SIDBI, under its revamped strategy SIDBI 2.0, has adopted the theme of ease of access to MSEs and being Impact Multiplier & Digital Aggregator

### World's first Hyperloop passenger capsule unveiled

Hyperloop Transportation Technologies Inc. unveiled its first full-scale passenger capsule, in Spain.

#### Highlights:

- It is a transportation system where a pod-like vehicle is propelled through a near-vacuum tube connecting cities at speeds matching that of an aircraft.
- The hyperloop system is being designed to transport passengers and freight.

#### Hyperloop Technology in India:

- The government of Andhra Pradesh has signed a Memorandum of Understanding (MoU) with California-based Hyperloop Transportation Technologies (HTT) to develop India's first Hyperloop route in the state.
- The proposed route for the Hyperloop between the city centers of Vijaywada and Amaravati.

### National Council for Vocational Education and Training

The Union Cabinet has approved the merger of the existing regulatory institutions in the skills space - National Council for Vocational Training (NCVT) and the National Skill Development Agency (NSDA) into the National Council for Vocational Education and Training (NCVET).

#### About NCVET:

- NCVET will regulate the functioning of entities engaged in vocational education and training, both long-term and short-term and establish minimum standards for the functioning of such entities.
- Functions:
  1. Recognition and regulation of awarding bodies, assessment bodies and skill related information providers
  2. Approval of qualifications developed by awarding bodies and Sector Skill Councils (SSCs)
  3. Indirect regulation of vocational training institutes through awarding bodies and assessment agencies
  4. Research and information dissemination
  5. Grievance redressal.

#### Benefits:

- Improvement in quality and market relevance of skill development programs lending credibility to vocational education and training
- Encouraging greater private investment
- Employer participation in the skills space
- It will help achieve the twin objectives of enhancing aspirational value of vocational education and of increasing skilled manpower
- Making India the skill capital of the world.
- To facilitate the ease of doing business by providing a steady supply of skilled workforce to the industry and services.

### Special Central Government Package for Footwear and Leather Sector

- The scheme aims at development of infrastructure for the leather sector

- address environmental concerns specific to the leather sector
- facilitate additional investments, generate employment and increase production
- Enhanced Tax incentives
- Reforms in labour laws
- DIPP has also given in-principal approval for mega leather cluster at Bantala in West Bengal

### National Electronics Policy 2018

The Union Ministry of Electronics and Information Technology (MeitY) has released draft of the National Electronics Policy 2018.

#### The draft:

- The policy aiming for a turnover of \$400 billion in domestic electronics manufacturing by 2025
- Promoting ease-of-doing business for the entire electronic system design manufacturing or ESDM sector
- Encouraging industry-led research and development and innovation in all sub-sectors of electronics.
- Push the startup ecosystem in emerging technology areas
- Provision of suitable direct tax benefits
- Replacing the M-SIPS (Modified Special Incentive Package Scheme) with schemes that are easier to implement such as interest subsidy and credit default guarantee, etc.

### Centre for the Fourth Industrial Revolution

The World Economic Forum has announced its new Centre for the Fourth Industrial Revolution in India.

#### About the centre:

- It would aim to bring together the government and business leaders to pilot emerging technology policies.
- The centre would be based in Maharashtra
- It has selected drones, artificial intelligence and blockchain as the first three project areas.
- It will work in collaboration with the government on a national level to co-design new policy frameworks and protocols for emerging technology
- NITI Aayog will coordinate the partnership on behalf of the government and the work of the centre among multiple ministries.

#### Fourth Industrial Revolution:

---

The fourth industrial revolution is a technological revolution that will fundamentally alter the way we live, work and relate to one another.

### Project Arya

To attract the youth of the country towards agriculture, a project called 'Arya' is being run through Krishi Vigyan Kendras and the Farmer Fest program.

#### Highlights:

- Skill development internships for youth are provided at the graduation level.
- Startups in the fields of seed and plant production, food processing and post-mortgage management, veterinary, farm machinery, poultry, fish production, biological products and bioplasty.
- Implemented by ICAR (Indian Council of Agricultural Research), Ministry of Agriculture & Farmers Welfare

### GI tags

#### Bihar's Shahi litchi gets GI tag

- Shahi litchi, which is famous for its sweet, juicy, unique flavour and aroma, is mostly grown in Muzaffarpur and neighbouring districts.
- The GI registration was done in the name of Litchi Growers Association of Bihar.
- Bihar produces 40 per cent of the litchi grown

#### GI Tag for Alphonso from Konkan

- Alphonso from Ratnagiri, Sindhudurg, Palghar, Thane and Raigad districts of Maharashtra.
- They are in demand in domestic and international markets not only for its taste but also for pleasant fragrance and vibrant colour.

#### About GI:

- A Geographical Indication or a GI is an indication used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin.
- GI products can benefit the rural economy in remote areas, by supplementing the incomes of artisans, farmers, weavers and craftsmen.
- The first product to get a GI tag in India was the Darjeeling tea in 2004.
- A total of 325 products from India that carry this indication.

### The World Diamond Council meet

- The World Diamond Council (WDC) held its 14th annual general meeting (AGM) in Mumbai with a focus on reform of the Kimberley Process.

- The meeting will be hosted by The Gems and Jewellery Export Promotion Council.

**About WDC and Kimberley Process:**

- The World Diamond Council is an organization representing the entire diamond value chain including representatives from diamond mining, manufacturing, trading and retail.
- The Council was established in July 2000 and mandated to put forth strategies to combat the use of diamond proceeds being used to benefit rebel forces engaged in conflict.

**Ban of BS-IV vehicles**

The Supreme Court said that no Bharat Stage-IV (BS-IV) vehicle shall be sold across the country with effect from April 1, 2020.

**Key Facts:**

- The BS-VI emission norm would come into force from April 1, 2020 across the country.
- BS-IV norms have been enforced across the country since April 2017.

**About BS-IV:**

- Introduced in 2000, the Bharat norms are emission control standards that are based on the European regulations (Euro norms).
- They set limits for release of air pollutants from equipment using internal combustion engines, including vehicles.
- The BS IV norms were introduced in 13 cities apart from the National Capital Region from April 2010 onwards. The entire nation was to be covered under BS IV by April 1, 2017.
- BS IV norms stipulate only 50 parts per million sulphur compared with up to 350 parts per million under BS III. Also, hydrocarbon, nitrogen oxide and particulate matter emissions are lower under BS IV.

**Major benefits of Bharat Stage VI norms:**

- NOx emission will come down by approximately 25% for the petrol engine and 68% for the diesel engines.
- The PM emission will see a substantial decrease of 80% in diesel engines.
- On board Diagnostics (OBD) will become mandatory for every vehicle and it will help monitor the pollution caused by the vehicle in real time.
- RDE (Real Driving Emission) will be introduced for the first time that will measure the emission in real-world conditions and not just under test conditions.

- Bharat Stage VI norms will also change the way particulate matter is measured. It will now be measured by number standard instead of mass standard thereby, regulating the fine particulate matter as well.

### Creation of Fisheries and Aquaculture Infrastructure Development Fund (FIDF)

#### Key Facts:

- FIDF would provide concessional finance to State Governments / UTs and State entities, cooperatives, individuals and entrepreneurs etc., for taking up of the identified investment activities of fisheries development.
- The fund being raised by Nodal Loaning Entities (NLEs).
- National Bank for Agriculture and Rural Development (NABARD), National Cooperatives Development Corporation (NCDC) and all scheduled Banks (hereinafter referred as Banks) shall be the nodal Loaning Entities.

#### Benefits:

- To augment fish production to achieve its target of 15 million tonne by 2020 set under the Blue Revolution; and to achieve a sustainable growth of 8% -9% thereafter.
- Employment opportunities.
- To attract private investment in creation and management of fisheries infrastructure facilities.
- Adoption of new technologies.

### Draft Mari culture policy

#### The provisions of the draft policy:

- It aims to enhance mariculture production
- The policy has mooted mariculture zones by demarcating special areas in the sea for activities such as cage farming, bivalve farming, pen culture, seaweed culture, hatcheries and nurseries based on scientific criteria.
- The policy has also suggested farming of genetically modified (GM) species only in closed mariculture systems after stringent risk assessment and monitoring.
- It will not be permitted in open sea culture.
- Satellite remote sensing data and GIS will be used to identify potential zones for mariculture on the basis of scientific evaluation of environmental parameters suitable for various types of farming.
- To avoid conflict with other users and protecting the livelihoods of local fishing communities.

- The policy advises the government to formulate financial assistance programmes, including prioritised lending schemes, subsidised credit and investment subsidies, to promote mariculture.
- The policy has made provisions for leasing the water bodies and regulating the activities in the open sea waters to ensure security of the mariculture enterprises.
- Efficient market logistics would be promoted to minimize post-harvest losses and preserving the nutritional quality and value of fish.
- Institutional support will be extended for development of domestic market infrastructure for hygienic handling, processing and cold storage.

**About mariculture:**

- Mariculture is a specialised branch of aquaculture involving the cultivation of economically important marine plants and animals in the sea or any other water body having tidal influence.

**Indian Railways' first engine-less train**

- Made-in-India
- Train 18 can run at 160 kmph speed and has swanky interiors
- Developed by Chennai-based Integral Coach Factory
- The self-propelled train
- Train 18 has diffused lighting, automatic doors and footsteps beside GPS-based Passenger Information System.
- The train will be equipped with modular toilets with a bio-vacuum system and there will be accessible toilets for persons with disability.

**Engine-less train**

- There are electric motor at each bogies.
- There is no engine in front like that of normal train.

**World's highest railway line**

India railways is planning to link New Delhi and Ladakh by means of a railway line that will run along the India-China Border.



- The proposed Bilaspur-Manali-Leh Line will be the world's highest at 5,360 metres above mean sea level which is comparable to China's Quinghai-Tibet Railway Line at 5,072 metres.
- It will provide quick all-weather access to the armed forces
- The railway line will also boost tourism in the scenic Ladakh region
- The project will include 74 tunnels, 124 major bridges and 396 minor bridges

### 1.3 SOCIAL DEVELOPMENT

#### Mahatma Gandhi Jayanthi Celebrations

##### India for Humanity initiative

Union Ministry of External Affairs (MEA) has launched India for Humanity initiative in honour of Gandhiji's service to humanity.

- It will feature year-long series of artificial limb fitment camps in a number of countries spanning globe.
- It aims to provide physical, economic and social rehabilitation of differently-abled around world by helping them regain their mobility and dignity to become self-respecting and productive members of society.
- It focuses on Mahatma Gandhi's philosophy of compassion, caring and service to humanity

##### Mahatma Gandhi International Sanitation Convention

The Mahatma Gandhi International Sanitation Convention is being organised by the Ministry of Drinking Water and Sanitation also coinciding with the fourth anniversary of the launch of Swachh Bharat Mission.

- Ministers from over 70 countries will be invited and taken on a 'Gandhi Trail' in Gujarat.
- The government will use the occasion to "showcase its performance" and "success story" in the Swachh Bharat programme in the past four years, which was launched on October 2, 2014
- A face-to-face dialogue with the world leaders to share their experiences on sanitation programmes

#### Swachhata Awards 2018

##### Swachhata Ranking Awards 2018 for higher educational institutions

- The Union Ministry for Human Resource Development conferred Swachhata Ranking Awards 2018 for higher educational institutions



- To generate healthy peer pressure among higher educational institutions for keeping and maintaining hygienic campuses
- To include aspects like rain water harvesting, solar power, quality of hostel kitchen apparatus, water supply system quality, maintenance method sophistication etc.
- HRD Ministry would be developing careers in Waste & Environment Management by introducing an elective course in the subject and also a PG Diploma in Waste Management that includes internship.

#### **Swachh Survekshan Grameen Awards 2018**

- Top 3 States-1) Haryana, 2) Gujarat 3) Maharashtra
- Top 3 Districts 1) Satara, Maharashtra 2) Rewari, Haryana 3) Pedapalli, Telangana
- States with maximum citizen participation 1) Uttar Pradesh 2) Gujarat 3) Maharashtra
- Ranking was done based on a comprehensive set of parameters including surveys of public places like schools, Anganwadis, PHCs, Haat/ Bazaars, Panchayat and citizen's perception of Swachhata and their recommendations for improvement of the program and data from the SBM-G IMIS.
- It is through an independent survey agency to develop ranking of all districts of India on the basis of quantitative and qualitative sanitation (Swachhata) parameters.

#### **Swachh Bharat Mission (SBM)**

- SBM is intended at accelerating the efforts to achieve universal sanitation coverage.
- It aims at achieving Open Defecation Free (ODF) nation and a Swachh Bharat (Clean India) by 2nd Oct, 2019, the 150th anniversary of Mahatma Gandhi.
- SBM is being implemented by the Ministry of Urban Development in Urban areas and by the Ministry of Drinking Water and Sanitation in Rural areas.

#### **Objectives:**

- Elimination of open defecation
- Eradication of Manual Scavenging
- Modern and Scientific Municipal Solid Waste Management
- To effect behavioral change regarding healthy sanitation practices
- Generate awareness about sanitation and its linkage with public health
- Capacity Augmentation for ULB's
- Creating an enabling environment for private sector participation

#### **Components of SBM:**

- Household toilets, including conversion of insanitary latrines into pour-flush latrines

- Community toilets
- Public toilets
- Solid waste management
- Public Awareness and IEC (Information, Education and Communication)

**Implementation:**

- Behaviour change is the primary focus and fundamental tool for achievement of ODF outcomes.
- The Ministry's focused Information, Education and Communication (IEC) programme.
- Promotes gender sensitive information, behaviour change guidelines and various mass education activities

**Funding:**

- States will contribute a minimum of 25% funds towards all components to match 75% Central Share.
- This will be 10% in the case of North East and special category States.

**Karnataka's Good Samaritan Bill**

The president has given his assent to the Karnataka Good Samaritan and Medical Professional (Protection and Regulation during Emergency Situations) Bill, 2016.

**The Bill:**

- It aims to give protection to good samaritans and ensure immediate medical assistance for road accident victims within the 'golden hour' and encourage people to offer first aid to victims without fear of harassment in the hands of police and investigations.
- The Karnataka government will provide financial help to good samaritans who help victims in a timely manner, they will be exempted from repeated attendance in courts and police stations, in case attendance is mandatory, expenses of such "running around to courts and police stations" will be taken care through the proposed 'Good Samaritan Fund'.
- Karnataka has become the first state to give legal protection to good samaritans through a legislation amidst the rising incidents of accidental deaths in India

**Golden Hour:**

- The 'golden hour' is the first hour after a traumatic injury when emergency treatment is very crucial.

**Global Skills Park**

Asian Development Bank (ADB) and the Government of India signed Loan Agreement to establish a Global Skills Park (GSP) in Madhya Pradesh, the First Multi-Skills Park in India.

**GSP campus:**

- The new GSP campus, which will be established in Bhopal will consist of core Advanced Training Institutes including the Center for Occupational Skills Acquisition and the Center for Advanced Agricultural Training
- Focusing on entrepreneurship, training of trainers, and skill-related research.
- The Project will also help in modernizing 10 industrial training institutes across the state by renovating training infrastructure and upgrading skills courses to align with industry and market needs

**World Bank's Human Capital Index**

The World Bank released a Human Capital Index (HCI) as part of the World Development Report 2019.

Theme of the World Development Report : The Changing Nature of Work

- The HCI has been constructed for 157 countries.
- It claims to seek to measure the amount of human capital that a child born today can expect to attain by age 18.

**The components of HCI:**

- Survival, as measured by under-5 mortality rates
- Expected years of Quality-Adjusted School which combines information on the quantity and quality of education
- Health environment using two proxies of (a) adult survival rates and (b) the rate of stunting for children under age 5

**HCI for India in the Report:**

- Human Capital Index: A child born in India today will be only 44 per cent as productive when she grows up as she could be if she enjoyed complete education and full health.
- The HCI in India for females is marginally better than that for males.

**International Day of Rural Women**

October 15 is observed, respectively, as International Day of Rural Women by the United Nations, and National Women's Farmer's Day (Rashtriya Mahila Kisan Diwas) in India.

**Highlights:**

- About 18% of the agricultural households in India are led by women.
- A National Gender Resource Centre in Agriculture, set up in the Department of Agriculture Cooperation & Farmers Welfare

- The cooperative education programs of women are organized through State Cooperative Societies to ensure women's participation in various activities in the field of cooperatives.
- Special importance is being given to the role of women in achieving the goal of doubling farmers' income by 2022.

**Challenges faced by rural women:**

- Powerlessness of women in terms of claiming ownership of the land
- Lack of access to formal credit
- Lack of access to market
- Less access to resources and modern inputs

**Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP)**

The Central Warehouse of Pradhan Mantri Bhartiya Janaushadhi Pariyojana at Bilaspur, Gurugram is setup by the Bureau of Pharma PSUs of India (BPPI).

**Highlights:**

- The hi-tech Central Warehouse would facilitate seamless distribution of Jan Aushadhi generic medicines to all PMBJP Kendra functional across the country.
- The Digital Cash Management System for Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP), to be implemented as a partnership between BPPI and Bank of Baroda was inaugurated.

**About PMBJK:**

Pradhan Mantri Bhartiya Jan Aushadhi Kendra (PMBJK) have been set up to provide generic drugs, which are available at lesser prices but are equivalent in quality and efficacy as expensive branded drugs.

**About BPPI:**

Bureau of Pharma Public Sector Undertakings of India (BPPI) has been established under the Department of Pharmaceuticals, Govt. of India, with the support of all the CPSUs.

**Transformation of Aspirational District Programme****Highlights:**

- It aims to quickly and effectively transform some of India's most underdeveloped districts.
- It will identify areas of immediate improvement, measure progress, and rank districts.
- The broad ideas of the programme include -
  1. convergence of central and state schemes

2. collaboration of central, state level 'Prabhari' (in-charge) officers and district collectors
3. competition among districts
  - The states are the main drivers in the programme.
  - Deliberately, the districts have been described as aspirational rather than backward.
  - The motive is to view them as areas of opportunity and hope rather than of distress and hopelessness.

**Districts selection:**

- The 115 districts were chosen by senior officials of the Union government.
- This was in consultation with State officials on the basis of a composite index.
- The parameters included are -
  1. Deprivation enumerated under Socio-Economic Caste Census
  2. Key health and education performance indicators
  3. State of basic infrastructure

**Progress monitoring:**

- NITI Aayog in partnership with the government of Andhra Pradesh has created a dashboard.
- Monitoring the real-time progress of the districts.
- District collectors of all the aspirational districts can input the latest available data of their respective district
- The dashboard will also be open to the public

**Significance of ADP:**

- This is the first time India's most backward districts are being focussed.
- ADP is a better vision of how public services are best delivered to those who need them the most.
- With real time data in ADP, those on the ground level can alter strategies after accurate feedback.

**About Prabhari Officer:**

- Each district has a prabhari (in-charge) officer:
  1. Assigned from the Centre (of additional secretary or joint secretary rank)
  2. assigned from the State (of the rank of Secretary to State government)
- A prabhari officer will work in cooperation with the district administration.

**National Monitoring Framework on Sustainable Development Goals**

The Union Cabinet approved National Monitoring Framework on Sustainable Development Goals.

**Targets:**

- Measures to mainstream SDGs into on-going national policies, programmes and strategic action plans to address the developmental challenges.
- Statistical indicators of NIF will be the backbone of monitoring of SDGs at the national and state level and will scientifically measure the outcomes of the policies to achieve the targets under different SDGs.
- Based on statistical indicator, the MoSPI will bring out national reports on implementation of SDGs.
- Data source Ministries / Departments will be responsible for providing regular information to MoSPI on these indicators at required intervals and disaggregation for national and sub-national reporting of SDGs.
- Advanced IT tools will be used for close and effective monitoring.

**Major impact:**

- SDGs integrate economic, social and environmental dimensions of development. It intends eradicating poverty and promoting prosperity in a changing world with basic motto of 'SabkaSaathSabkaVikash'.
- SDGs with 17 Goals and 169 Targets intend for promotion of sustainable, inclusive and equitable economic growth, creating greater opportunities for all, reducing inequalities, raising basic standards of living, fostering equitable social development and inclusion, promoting integrated and sustainable management of natural resources and ecosystems.

**About Sustainable Development Goals:**

- The 17 SDGs came into force with effect from 1st January, 2016.
- They are not legally binding, the SDGs have become de facto international obligations and have potential to reorient domestic spending priorities of the countries during the next fifteen years.
- Countries are expected to take ownership and establish a national framework for achieving these Goals.
- Countries would be responsible for follow-up and review at the national level

**Indian Institute of Skill(IISs)**

The Union Cabinet has approved the for setting up of Indian Institute of Skills(IISs) at different locations across the country in Public Private Partnership (PPP).

**Benefits:**

- It shall augment the global competitiveness of key sectors of Indian economy by providing high quality skill training, applied research education and a direct and meaningful connection with industry.

- It will provide opportunity to aspiring youth across the country to have access to highly skilled training, and
- Enhance the scope of accountability through its linkage with industry and global competitiveness across sectors.
- It would create new institutes of expertise, knowledge and competitiveness

### **Scheme for Promotion of Academic and Research Collaboration (SPARC)**

The central Government launched the web portal of the Scheme “Scheme for Promotion of Academic and Research Collaboration (SPARC)” in New Delhi.

Highlights:

- SPARC scheme aims at improving the research ecosystem of India’s higher educational institutions by facilitating academic and research collaborations between Indian Institutions and the best institutions in the world.
- Indian Institute of Technology Kharagpur is the National Coordinating Institute to implement the SPARC programme.

#### **Salient Features of SPARC:**

1. Visits and long-term stay of top international faculty/researchers in Indian institutions to pursue teaching and research
  2. Visits by Indian students for training and experimentation in premier laboratories worldwide
  3. Joint development of niche courses, world-class books and monographs, translatable patents, demonstrable technologies or action oriented research outcomes and products
  4. Consolidation of Bilateral cooperation through academic and research partnerships through Indo-X Workshops in India
  5. Publication, Dissemination and Visibility through a high profile annual international conference in India.
- The Scheme is expected to have a major impact in providing the best international expertise to address major national problems

## **2. ENERGY AND ENVIRONMENT**

### **2.1 ENERGY**

#### **Methanol Fuel**

##### **Blending LPG with Methanol:**



- Blending 20% methanol with LPG estimated to cut cost of gas for household consumption by ₹100 a cylinder
- The project would be piloted by the NITI Aayog.
- There can be an annual reduction of \$100 billion in crude imports by 2030 if the country moves to 15% blended fuel, both for transportation and cooking.
- The plan is to produce methanol from abundantly available low-quality coal and other bio resources.

**Benefits:**

- Reduces dependency imports
- Environmental benefits
- Saves consumption cost
- Reduces government burden on subsidies

**About Methanol:**

- Methanol is a liquid chemical
- It is colorless, volatile, flammable, and poisonous.
- Methanol is made from the destructive distillation of wood and is chiefly synthesized from carbon monoxide and hydrogen.
- Its principal uses are in organic synthesis, as a fuel, solvent, and antifreeze.

**Methanol Cooking Fuel Program of India**

Northeast and Assam Petro-chemicals, a state-owned company launched Asia's first canisters based and India's first "Methanol Cooking Fuel Program".

- The methanol cooking fuel will be available in canisters of 1.2 kg capacity each
- The safe handling canister based cooking stoves are from Swedish Technology
- The gaseous form, Methanol - DME, can be blended in 20% ratio with LPG.

**First assembly of the International Solar Alliance**

The first Assembly of the International Solar Alliance was inaugurated in India.

**About ISA assembly:**

- The supreme decision making body of the ISA
- The countries that have ratified the ISA Treaty Framework will attend the Assembly as Members.
- Countries that have signed but are yet to ratify the ISA Treaty Framework will attend the Assembly as Observers.

**About ISA:**

- International Solar Alliance (ISA), an alliance of 121 solar resource rich countries lying fully or partially between the Tropics of Cancer and Capricorn.



- ISA was launched on November 30, 2015 in Paris, France on the side-lines of the 21st Conference of Parties (CoP 21) to the United Nations Framework Convention on Climate Change.
- The ISA Framework Agreement was opened for signature on 15 November 2016 in Marrakech, Morocco, on the side-lines of CoP-22.
- Its Missions is to provide a dedicated platform for cooperation among solar resource rich countries that lie completely or partial between the Tropics of Capricorn & Cancer, the global stakeholders, including bilateral and multilateral organizations, corporates, and industry to make a positive contribution
- To assist and help achieve the common goals of increasing the use of solar energy in meeting energy needs of prospective ISA member countries in a safe, convenient, affordable, equitable and sustainable manner.

### Russia to set up more nuclear reactors in India

India and Russia signed a document for cooperation on a new nuclear power project in India with the latest VVER-1200 type reactors powered by advanced fuel.

#### Key Facts of the agreement:

- The Action Plan for Prioritisation and Implementation of Cooperation Areas in the Nuclear Field was signed
- To implement the project of six nuclear power units of Russian design at a new site in India
- Cooperation in third countries in new promising areas of nuclear technology apart from the construction of nuclear power plants
- Russia will offer the reference evolutionary VVER-1200 technical solutions of the generation "3+" reactors for the new nuclear project
- Optimise the timing and the cost of project implementation.
- India is collaborating with Russia in setting up Bangladesh's first nuclear plant at Rooppur.

### India's first 2G biofuel plant

Bharat Petroleum Corporation Ltd (BPCL) will complete commissioning of its second generation (2G) ethanol bio-refinery at Baulsingha village in Bargarh district of Odisha by 2020.

#### Highlights:

- The ethanol will be produced from rice straw.
- Ethanol will be blended with petrol and used as fuel

### India's emergency oil reserve

**Highlights:**

- The plan is to build underground caverns that can hold a combined 6.5 million tons of crude at two locations
- The two new reserves include 4 million tons of storage at Chandikhol in the eastern state of Odisha and a 2.5 million-ton facility at Padur in southern India's Karnataka.
- The state-run ISPRL will collaborate with private entities, who will invest in the project
- Expanding strategic petroleum reserves to shield the economy from oil-price volatility.
- The new SPRs will be sufficient to cover the country's oil needs for another 12 days

**First smoke-free State**

Kerala is set to become the first smoke-free State in the country with public sector oil companies eyeing 100% LPG penetration.

About Pradhan Mantri Ujjwala Yojana:

- It aims to provide LPG (liquefied petroleum gas) connections to poor households.
- Under the scheme, an adult woman member of a below poverty line family identified through the Socio-Economic Caste Census (SECC) is given a deposit-free LPG connection with financial assistance of Rs 1,600 per connection by the Centre.
- Eligible households will be identified in consultation with state governments and Union territories.
- The scheme is being implemented by the Ministry of Petroleum and Natural Gas.

Objectives of the scheme:

- Empowering women and protecting their health.
- Reducing the serious health hazards associated with cooking based on fossil fuel.
- Reducing the number of deaths in India due to unclean cooking fuel.
- Preventing young children from significant number of acute respiratory illnesses caused due to indoor air pollution by burning the fossil fuels.

**Fusion Energy Conference (FEC 2018)**

The 27th IAEA Fusion Energy Conference (FEC 2018) is scheduled to be held in Gandhinagar, Gujarat.

The conference:

- It was organised by the International Atomic Energy Agency (IAEA) and hosted by Department of Atomic Energy and Gandhinagar-based Institute of Plasma Research.
- The conference aims to provide a forum for the discussion of key physics and technology issues as well as innovative concepts of direct relevance to the use of nuclear fusion as a source of energy.
- To reflect the priorities of this new era in fusion energy research.

#### About IAEA:

- The International Atomic Energy Agency (IAEA) is an international organization that seeks to promote the peaceful use of nuclear energy.
- To inhibit its use for any military purpose, including nuclear weapons.
- The IAEA has its headquarters in Vienna, Austria.
- The IAEA reports to both the United Nations General Assembly and Security Council
- The IAEA serves as an intergovernmental forum for scientific and technical co-operation in the peaceful use of nuclear technology and nuclear power worldwide

#### Germany rolls out world's first hydrogen train

- First run was between the towns and cities of Cuxhaven, Bremerhaven, Bremervoerde and Buxtehude in northern Germany .
- Hydrogen trains are equipped with fuel cells that produce electricity through a combination of hydrogen and oxygen, a process that leaves steam and water as the only emissions.
- Excess energy is stored in ion lithium batteries on board the train.
- A hydrogen train is somewhat more expensive than a diesel train, but it is cheaper to run

#### Benefits:

- Alternative fuel
- Environmental friendly
- Lowers dependency on oil countries

## 2.1 ENVIRONMENT

### World Habitat Day

World Habitat Day is observed every year on the first Monday of October throughout the world.

Key Facts:

- It was officially designated by the United Nations and first celebrated in 1986.
- The purpose of the day is to reflect on the state of our cities and towns and the basic human right to adequate shelter.
- It also aims to remind the world of its collective responsibility for the habitat of future generations.
- The theme of 2018 World Habitat Day is 'Municipal Solid Waste Management' with a slogan 'Waste-wise cities'.
  - a. Raise awareness that Municipal solid waste is a global challenge that all of us need to address
  - b. Facilitate policy dialogue and form partnerships
  - c. Promote innovative solutions to municipal solid waste management
  - d. Mobilize resources to address the municipal solid waste challenges

### Proposed Global Geoparks

An ancient circular lake created by a meteorite strike in Maharashtra and a hexagonal mosaic of basaltic rocks in an island off Udupi are poised to become global geoparks, under a Geological Survey of India (GSI) plan.

#### About The Global Geoparks Network:

- The Global Geoparks Network (GGN) (also known as the Global Network of National Geoparks) is a UNESCO assisted network established in 1998.
- The GGN seeks the promotion and conservation of the planet's geological heritage, as well as encourages the sustainable research and development by the concerned communities

#### About Global Geopark Tag:

- The Geopark tag is akin to that of a 'World Heritage Site' for historical monuments

### Threat to Eastern Ghats

The Eastern Ghats spread across Odisha, Andhra Pradesh, Karnataka and Tamil Nadu, has lost almost 16% of its forest area over a span of 100 years, a recently published study shows.

The loss:

- Deforestation
- Habitats destruction

Reasons:

- Agriculture
- Mining
- Other developmental activities

Importance of Eastern Ghats:

- The monsoon break of both North-East and South-West Monsoon
- Habitat to Tribal communities

### Climate Change Report: IPCC

Intergovernmental Panel on Climate Change (IPCC), recently released a report highlighting the impacts that developing countries like India would face if global warming touches 2°C as compared to 1.5°C.

**Warnings to India:**

- Higher risks from heavy precipitation events, including flooding and tropical cyclones.
- Increased number of hot days and Coastal flooding.
- Denting India's GDP by 2.8% and depress the living standards of nearly half the population by 2050.
- Decreased food availability as a result of projected dip in crop production.
- Increased risk of vector-borne diseases such as malaria and dengue.

Challenges:

- The challenge is to create communities in peri-urban and hinterland areas designed for walking, cycling and sustainable neighbourhood.
- To focus on the small and medium scale employees and modest capital investments for employment generation.

Suggestions:

- Large investments are needed
- A carbon tax that curbs the non-essential consumption could be employed.
- Decentralised, neighbourhood-scale micro-utilities, managed by locally owned enterprises and cooperatives.

- Modern power electronics and innovations in hybrid waste to energy, water recycling etc.

**Other Highlights:**

- The implications of the report will be discussed at the Katowice climate change conference in Poland where governments will review the Paris Agreement to tackle climate change.
- The Special Report on Global Warming of 1.5 degrees C warns that average global temperatures could breach the 1.5 degree level as early as 2030.
- In the Indian subcontinent, the IPCC report specifically mentions Kolkata and Karachi among cities that could face an increased threat of heat waves.
- The global warming affects human health, causing loss of millions of lives
- The poverty is expected to increase with rise in global warming, the impacts associated with other biodiversity-related risks include forest fires,

**Tiny spheres to trap water contaminants developed**

Scientists have created tiny spheres that can catch and destroy bisphenol A (BPA), a synthetic chemical used to make plastics that often contaminates water.

**Key Features:**

- The micron-sized spheres developed resemble tiny flower-like collections of titanium dioxide petals.
- It has a two-faced structure, with a hydrophobic (water-avoiding) cavity and a hydrophilic (water-attracting) outer surface.
- BPA is hydrophobic and naturally attracted to the cavity. Once trapped, reactive oxygen species (ROS) produced by the spheres degrades BPA into harmless chemicals.

**About bisphenol A :**

- BPA is commonly used to coat the insides of food cans, bottle tops and water supply lines, and was once a component of baby bottles.
- Concerns: While BPA that seeps into food and drink is considered safe in low doses, prolonged exposure is suspected of affecting the health of children and contributing to high blood pressure.

**National Dolphin Research Centre (NDRC)**

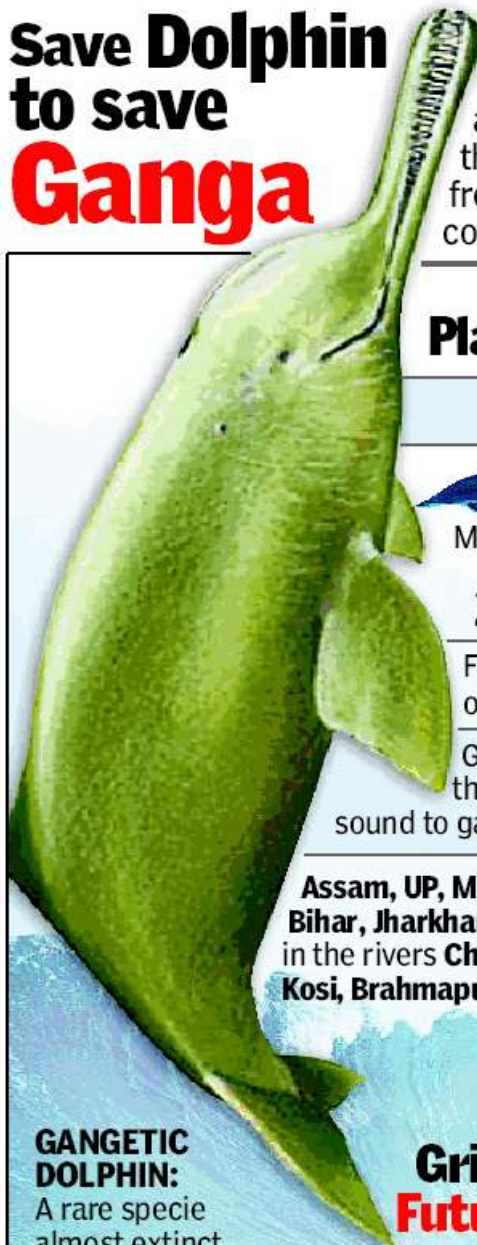
India's and Asia's first Dolphin Research Centre will be set up on the banks of the Ganga river in Patna University campus in Patna, Bihar.

**About Gangetic Dolphins:**



- The Ganges River dolphin, or susu, inhabits the Ganges-Brahmaputra-Meghna and Karnaphuli-Sangu river systems of Nepal, India, and Bangladesh.
- It is classified as endangered by the IUCN.
- India has declared Ganga Dolphin as the National Aquatic Animal of India



# Save Dolphin to save Ganga



The Centre has declared the dolphin a national aquatic animal to save the rare freshwater species from disappearing from the country's aqua map

Know about **Platanista gangetica**

 **1.67 m**

 Males grow up to <b>2.12 m</b>	 Females grow up to <b>2.67 m</b>
--	---

Females give birth to only one calf, once in **2-3 yrs**

Generally blind, they catch their prey by emitting ultrasonic sound to gauge distance, mass etc

**Assam, UP, MP, Rajasthan, Bihar, Jharkhand & W Bengal** in the rivers **Chambal, Sone, Kosi, Brahmaputra**



Prefer deep waters, in & around Indian river confluences

**GANGETIC DOLPHIN:**

A rare specie almost extinct

**Lost cousin:** The Yangtze dolphin, Baiji, of China

**Grim Future**

Dwindling number due to killing, habitat fragmentation

Once counted in 10's of 1000's, the amount has reduced in last century to **1,500**

"Endangered" & placed in **Schedule-I of Wildlife (Protection) Act, 1972**

### Environment Pollution (Prevention and Control) Authority (EPCA)

Union Ministry of Environment, Forests and Climate Change (MoEFCC) has reconstituted Supreme Court-empowered Environment Pollution (Prevention and Control) Authority (EPCA).

#### Composition of EPCA:

- The EPCA has 14 members and a chairman

#### About EPCA:

- The objective is 'protecting and improving' the quality of the environment and 'controlling environmental pollution' in the National Capital Region.
- The EPCA assists the apex court in various environment-related matters in the region.
- It was notified in 1998 by Environment Ministry under Environment Protection Act, 1986.

### E-Flow for Ganga

The Central Government notified the minimum environmental flows for River Ganga that has to be maintained at various locations on the river.

#### Highlights:

- Environmental flows are the acceptable flow regimes that are required to maintain a river in the desired environmental state or predetermined state
- The notification of e-flow for the river would go a long way in ensuring its Avirala dhara or continuous flow.
- It will ensure that the river has at least the minimum required environmental flow of water even after the river flow gets diverted by projects and structures for purposes like irrigation, hydropower, domestic and industrial use etc.
- It will apply to the upper Ganga River Basin up to Haridwar and the main stem of River Ganga up to Unnao district of Uttar Pradesh
- It is applicable to all existing, under-construction and future projects.
- The mini and micro projects which do not alter the flow characteristics of the river or stream significantly are exempted from these environmental flows.

#### About Aviral dhara:

- The Vision for Ganga Rejuvenation constitutes restoring the wholesomeness of the river defined in terms of ensuring "Aviral Dhara" (Continuous Flow").

### Titli and LUBAN cyclonic storms

Titli' hit Arabian sea and another cyclonic storm 'LUBAN' has hit the Arabian sea.

#### Cyclone Names:



- An international panel on tropical cyclones decided that countries from the region would each put in names, which would be assigned to storms in the Bay of Bengal and Arabian Sea.
- Eight countries — India, Pakistan, Bangladesh, Maldives, Myanmar, Oman, Sri Lanka and Thailand – participated and came up with a list of 64 names.
- In the event of a storm, the Regional Specialized Meteorological Centre, New Delhi, selects a name from the list.

### Air Quality Early Warning System for Delhi







#### Highlights:

- The System is designed to predict extreme air pollution events
- Give alerts to take necessary steps as per Graded Response Action Plan (GRAP) of the Government of India.
- A new website developed for archiving all the observational and prediction products was also launched

#### About air pollution warning system:

- 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).
- 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.
- Predictions of air pollutants from two different air quality prediction systems based on state-of-the-art atmospheric chemistry transport models
- Warning Messages and Alerts and Bulletins.

#### About AQI:

AQI	Remark	Color Code	Possible Health Impacts
0-50	Good		Minimal impact
51-100	Satisfactory		Minor breathing discomfort to sensitive people
101-200	Moderate		Breathing discomfort to the people with lungs, asthma and heart diseases
201-300	Poor		Breathing discomfort to most people on prolonged exposure
301-400	Very Poor		Respiratory illness on prolonged exposure
401-500	Severe		Affects healthy people and seriously impacts those with existing diseases

- Air Quality Index (AQI) is a tool to showcase air quality status.
- As the AQI increases, an increasingly large percentage of the population is likely to experience increasingly severe adverse health effects.

The measurement of air quality is based on eight pollutants namely:

1. Particulate Matter (size less than 10  $\mu\text{m}$ ) or (PM10),
2. Particulate Matter (size less than 2.5  $\mu\text{m}$ ) or (PM2.5),
3. Nitrogen Dioxide (NO<sub>2</sub>),
4. Sulphur Dioxide (SO<sub>2</sub>),
5. Carbon Monoxide (CO),
6. Ozone (O<sub>3</sub>),
7. Ammonia (NH<sub>3</sub>), and
8. Lead (Pb)

### Water Disinfection System “Oneer”

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 “Oneer”.

- 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.).
- The device will go a long way in meeting the requirements of potable water in rural and urban areas
- The technology will be helpful especially for rural people since it can be solar powered and
- The development is in line with the 'Make in India' Mission

### Landslides prevention

The landslides had become a common phenomenon in the Himalayan States and other hilly regions.

Reasons of landslides:

- Construction activities
- Overexploitation of natural resources
- Rampant deforestation

Preventive measures:

- Procedures prescribed are duly followed
- Planting Vetiver species with deep roots
- Using geosynthetics and
- Erecting retaining walls
- Afforestation

### Climate fund allots \$1bn for poor nations

- The Green Climate Fund approved 19 new projects
- To help poor countries tackle climate change

#### About Green Climate Fund:

- The Green Climate Fund (GCF) is a fund established within the framework of the UNFCCC as an operating entity of the Financial Mechanism to assist developing countries in adaptation and mitigation practices to counter climate change.
- The GCF is based in the Incheon, South Korea.
- It is governed by a Board of 24 members and supported by a Secretariat.
- The objective of the Green Climate Fund is to "support projects, programmes, policies and other activities in developing country Parties using thematic funding windows".
- The Green Climate Fund will support projects, programmes, policies and other activities in developing country Parties using thematic funding windows.

- It is intended to be the centrepiece of efforts to raise Climate Finance of \$100 billion a year by 2020.

### Harit Diwali-Swasth Diwali campaign

Ministry of Environment initiated this campaign in 2017-18 wherein large number of school children especially from eco-clubs participated and took pledge to minimize bursting of crackers and also discouraged the neighborhood and their friends from bursting of crackers.

- The campaign is now merged with “Green Good Deed” movement that has been initiated as a social mobilization for conservation and protection of environment.

## Less bang for the buck

**TIME LIMIT:** Deepavali: 8 p.m.-10 p.m.

Christmas, New Year's eve: 11.55 p.m.-12.30 a.m.

■ Petroleum and Explosives Safety Organisation (PESO) to clear all firecrackers

■ PESO will review the composition of fireworks to test for presence of banned chemicals like lithium, arsenic, lead and mercury; to submit report in 2 weeks

■ Blanket ban on online sale of firecrackers

■ Ban on barium salts in crackers

■ Ban on series crackers or 'laris'

■ In case of violations, the Station House Officer will be liable for contempt of court



### Green Good Deed movement

The small, positive actions, to be performed by individuals or organisations to strengthen the cause of environmental protection have been put up on a mobile App named “Dr Harsh Vardhan”.

### SC Judgement

The Supreme Court has allowed sale of only “green” and reduced-emission or “improved” crackers.

- Only green or improved crackers would be used during religious festivals and other occasions.
- The reduced time window is applicable across the country.
- The sale of green and improved crackers would be only through licensed traders.
- Petroleum and Explosive Safety Organisation (PESO) to clear all firecrackers
- It banned online sale through e-commerce websites

**Green crackers:**

- They do not contain harmful chemicals that would cause air pollution.

Benefits:

- Reduced-emissions
- Health improvements
- Environment changes
- Cost savings

### 3rd Decadal International year of Reefs-2018

The International Conference on Status and Protection of Coral Reefs (STAPCOR – 2018) was inaugurated at Bangaram coral Island of Union Territory of Lakshadweep.

Theme: Reef for Life

**About STAPCOR:**

- The International Conference on Status and Protection of Coral Reefs (STAPCOR) established in the year 1998.
- To have a international conference in every 10 years to review the status and progress of coral reefs all over the world.

### 3. ICT

#### Digi Yatra

The Ministry of Civil Aviation released the policy on biometric based digital processing of passengers at airports called “Digi Yatra”.

Highlights:

- It is biometrics-based digital processing system for passenger entry and related requirements at the airport.
- To ensure uniform implementation and passenger experience across Indian airports through a connected ecosystem.



- Travellers will be able to enter airports in the country with facial recognition biometric
- To promote paperless and hassle-free air travel

### Space Applications Center

The Indian Space Research Organisation (ISRO) signed an MoU with the Central University of Jammu (CUJ) in Jammu for setting up of the Satish Dhawan Center for Space Science in the University.

Highlights:

- To create awareness about space research
- Tapping potential of Space Applications for the region of J&K in various fields like disaster management, health, education, communication, weather forecasting, land use planning, etc.
- It will have facilities for Geospatial Data analysis that will help in sustainable use of natural resources and planning land-use pattern.
- It will have ground-based observations for Atmospheric Studies, research lab for astrophysics, Atmospheric Sensing and Glacier studies Lab for better use of large quantity of water stored in the form of seasonal snow, ice and glaciers in the rivers of North India.

### 100k Genome Asia Project

A non-profit consortium called GenomeAsia 100K has announced an ambitious plan to sequence 100,000 Asian individuals in hopes of accelerating precision medicine applications for Asian populations.

- It will also leverage on big data analytics and advances in data science and artificial intelligence.
- In the first phase, the project will focus on creating phased reference genomes for all major Asian ethnic groups—for understanding the population history and substructure of the region.

#### Importance of the project:

- It has a direct impact on public health.
- To understand the biology of disease in the currently under-studied Asian populations

#### India's Genome initiative:

- India is planning a major mission to sequence the genes of a “large” group of Indians
- To improve health as well as buck a global trend of designing ‘personalised medicine.

- The Ministry of Health and Family Welfare and the Department of Biotechnology would be closely associated with the project.

## Space Explorations

### The Chandra X-Ray Observatory

NASA's the Chandra X-Ray Observatory has been observing the universe in high-energy light since 1999. Now it has entered a protective 'safe mode'.

- During the safe mode, the observatory is put into a safe configuration, critical hardware is swapped to back-up units, the spacecraft points so that the solar panels get maximum sunlight, and the mirrors point away from the Sun.

About Chandra X-Ray Observatory:

- The Chandra X-Ray Observatory is a NASA telescope that looks at black holes, quasars, supernovas, and the like – all sources of high energy in the universe.

### BepiColombo mission

European Space Agency's (Esa) first mission to Mercury- BepiColombo, is all set for launch to determine if the Mercury contains water.

Highlights:

- The four-tonne spacecraft will be launched into orbit by Esa's rocket Ariane 5 from the European spaceport
- BepiColombo is a joint mission between ESA and the Japan Aerospace Exploration Agency (JAXA), executed under ESA
- The mission comprises two spacecraft:
  1. The Mercury Planetary Orbiter (MPO)-study the surface and internal composition of the planet
  2. The Mercury Magnetospheric Orbiter (MMO)-will study Mercury's magnetosphere
- A mission can provide to enhance our understanding of the planet itself as well as the formation of our Solar System

### The Ask Disha

The first-of-its-kind initiative by The Indian Railway Catering and Tourism Corporation (IRCTC) recently launched an artificial intelligence (AI) chatbot- Ask Disha.

Highlights:

- The chatbot is aimed at facilitating accessibility by answering user queries pertaining to various services offered by IRCTC.
- The AI chatbot will be voice enabled and it will support several regional languages in the near future.



### #Self4 Society App

The Indian government will launch #Self4 Society app on October 24 to help coordinate volunteer work undertaken by professionals.

The App:

- The app developed by MyGov.
- To create better synergies among so many initiatives and lead to a much better outcome of the efforts of professionals.
- The platform will help to create better synergies among so many CSR and other initiatives and lead to a much better outcome of the efforts of professionals.
- The volunteer time for the government's flagship programmes such as Swachh Bharat is expected to increase.
- The app will have incentives, gamification and intra- and inter-company competitions, and social networking.

### National Strategy for Artificial Intelligence

NITI has published a National Strategy for Artificial Intelligence.

#### Highlights:

- National Strategy lays down the vision of India for evolving a robust ecosystem for AI research and adoption.
- The Strategy is termed #AIForAll as it is focused on leveraging AI for inclusive growth in line with the Government policy of Sabka Saath, Sabka Vikas.
- NITI Aayog has signed Statements of Intent (SoI) with industry leaders such as Google, Microsoft and IBM to leapfrog India into the global arena of future technologies
- Enable use of artificial intelligence in key, high gain sectors of social development – healthcare, agriculture, smart mobility, education and infrastructure.
- Multiple pilot projects have been launched in the areas of precision agriculture, creating AI led healthcare solutions, and bridging India's diversity of languages by creating a digital "Ek Bharat, Shrestha Bharat" platform using Natural Language Processing (NLP).

#### About Artificial intelligence:

- Artificial intelligence is the use of computers to simulate human intelligence.
- AI amplifies our cognitive abilities letting us solve problems where the complexity is too great, the information is incomplete, or the details are too subtle and require expert training.

#### Natural Language Processing (NLP):

NLP is a system of protocols which allow machines or computers to understand and interact with human speech and symbols.

### National Initiative for Development and Harnessing Innovations(NIDHI)

- NIDHI is an umbrella program for nurturing ideas and innovations (knowledge-based and technology-driven) into successful startups.
- It aims to take forward student innovations in IEDC (Innovation and Entrepreneurship Development Centres) programme to commercialization stage and to accelerate the journey of idea to prototype by providing initial funding assistance.

### Body scanner Technology

A committee comprising representatives of the Intelligence Bureau, National Investigation Agency and Cabinet Secretariat will be finalising technical specifications for full-body scanners using millimetre wave technology

- The BCAS had decided to recommend body scanners using active and passive millimetre wave technologies instead of back-scatter and full transmission X-ray technologies.
- The two types of millimetre wave scanners produce a silhouette of the passenger being screened instead of a naked image.

### About Millimetre wave technology:

- Millimeter wave is an undeveloped band of spectrum that can be used in a broad range of products and services like high speed, point-to-point wireless local area networks (WLANs) and broadband access.
- It is used for a variety of services on mobile and wireless networks, as it allows for higher data rates up to 10 Gbps.

### Benefits:

- Safeguarding the privacy of the individual
- Security enhancement
- Avoid X-ray radiation on human body

### Electronic Complaints Box/SHe-Box

The Ministry of Women & Child Development has launched an Electronic Complaints Box that enables women, irrespective of their work status, to raise their voice against sexual harassment at workplace.

### Key Facts:

- Once a complaint is submitted to the 'SHe-Box', it is directly sent to the concerned authority having jurisdiction to take action into the matter.
- A mechanism will be put in place to regularly monitor the action taken on the complaints.
- It aims for preventing and protecting women against sexual harassment in the workplace and to ensure effective redressal of complaints of sexual harassment

## World's smallest optical gyroscope

### Highlights:

- It is a device that helps vehicles, drones and handheld electronic devices know their orientation in 3D space.
- The new gyroscope is 500 times smaller than the current best device.
- It can detect phase shifts that are 30 times smaller than the best systems currently available.
- The new gyroscope achieves improved performance by using a new technique called "reciprocal sensitivity enhancement."
- It improves the signal-to-noise ratio in the system and enables the integration of the optical gyroscope on to a chip smaller than a grain of rice.

### The Sagnac effect:

- The Sagnac effect relies on detecting a difference between the two beams as they travel in opposite directions, it is considered nonreciprocal.
- With the development of optical gyroscopes based on the Sagnac effect, the bulky mechanical gyroscope was replaced by optical gyroscopes in many modern inertial navigation systems.

## KEY INITIATIVES OF GOVERNMENT

### Bharat Net

It is an ambitious programme to provide network infrastructure with affordable broadband connectivity on a non-discriminatory basis to all households in the country.

- It aimed to realize the vision of Digital India, in partnership with States and the Private Sector.
- The programme was previously called as the National Optical Fibre Network.
- It is implemented in three phases:
  1. First phase - providing broadband connectivity to one lakh gram panchayats by 2017
  2. Second Phase – providing broadband connectivity to 2 lakh gram panchayats by 2019
  3. Third Phase – providing state-of-art network using fibers between districts and block with reduced redundancy by 2023.

- Implementation will be done by the states, state agencies, private sector companies and central public sector undertakings.
- All the Service Providers like Telecom Service Providers (TSPs), ISPs, Cable TV operators etc. will be given non-discriminatory access to the National Optic Fibre Network and can launch various services in rural areas.
- It is funded from Universal Service Obligation Fund.
- Bharat Broadband Network is the nodal agency to oversee the work.

### **Objective**

To facilitate the delivery of e-governance, e-health, e-education, e-banking and other services to citizens in every part of our country, on a non-discriminatory basis.

### **Digi Locker**

- A secure dedicated personal electronic space for storing the documents of resident Indian citizens will be created.
- It is to provide citizens a shareable private space on a public cloud.
- The space can be utilized for storing personal documents like University certificates, PAN cards, voter id cards, etc., and the URI's of the e-documents issued by various issuer departments.
- It is a platform for issuance and verification of documents & certificates in a digital way, thus eliminating the use of physical documents.
- There is also an associated facility for e-signing documents.

### **Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA)**

- It is the new scheme to make rural households digitally literate by 2019.
- This scheme is initiated under Digital India Programme and expected to be one of the largest digital literacy programs in the world.
- It would empower the citizens by providing them access to information, knowledge and skills for operating computers/digital access devices.

### **SWAYAM**

- Study Webs of Active Learning For Young Aspiring Minds is an indigenous IT platform for hosting the Massive Open Online Courses (MOOCs).
- It targets those students who could not complete their studies and professionals who wish to upgrade their knowledge.
- Professors of centrally funded institutions like IITs, IIMs, central universities will offer online courses to citizens of India through this platform.

- However, it would not run courses such as engineering, medicine, dental, pharmacy, nursing, architecture, and physiotherapy.

### Shaala Sarathi

- It is a portal launched by the Ministry of HRD.
- It is a State-NGO-CSR Portal to aid the collaboration among the stakeholders in sharing innovative practices in various schools.

### Swayam Prabha

- The Swayam Prabha is a group of 32 DTH channels devoted to telecasting of high-quality educational programmes on 24X7 basis using the GSAT-15 satellite.
- The channels cover higher education, school education and assist the students (class 11th & 12th) prepare for competitive exams.
- The contents are provided by NPTEL, IITs, UGC, IGNOU, NCERT and NIOS.
- Information and Library Network (INFLIBNET), an autonomous Inter-University Centre (IUC) of UGC maintains the web portal.
- It allows students to choose the time of their convenience for learning.
- It widens the scope of SWAYAM, an online education platform which covers teachers training, graduate and post graduate courses.

### Electronic National Agriculture Market (e-NAM)

- It is a pan-India electronic trading portal which networks the existing APMC mandis to create a unified national market for agricultural commodities.
- NAM is a virtual market but it is connected to a physical market (mandi) at the back end and promotes genuine price discovery.
- Funding - Funded by Agri-Tech Infrastructure Fund (ATIF) which is set up through the Small Farmers Agribusiness Consortium (SFAC).
- License - Liberal licensing of traders and commission agents by state authorities and one license for a trader is valid across all markets in the state.
- Market Fee - Single point levy on the first wholesale purchase from the farmer.
- Implementation - A Central Sector Scheme. Willing states enact suitable provisions in their APMC act for integration with the e-platform
- Soil Testing Laboratories available in the mandis itself.

### Crime and Criminal Tracking Network and Systems (CCTNS)

- It is a Mission Mode Project (MMP) under the National e-Governance Plan of Govt. of India.

- It is aimed to create a comprehensive and integrated system for enhancing the efficiency and effectiveness of Police.
- A nationwide networked infrastructure for evolution of IT-enabled state-of-the-art tracking system around —investigation of crime and detection of criminals|| will be created to automate police functions at police Station and higher levels.
- It 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.

## GENERAL KNOWLEDGE

### Military Exercises

#### JIMEX 18

Bilateral Maritime Exercise Between Japan and India (JIMEX 18) was held at Visakhapatnam.

- It aimed to enhance interoperability, improve understanding and imbibe the best practices of each other.
- To enhance safety and security of the global commons in keeping with 'rule based order'

#### Dharma Guardian- 2018

To promote Military cooperation, India and Japan held the first ever joint military exercise 'DHARMA GUARDIAN-2018'.

- Emphasis will be laid on increasing interoperability between forces from both countries.
- Both sides will jointly train, plan and execute a series of well developed tactical drills for neutralisation of likely threats that may be encountered in urban warfare scenario.

### Awards

#### Sikkim wins FAO's award

India's first "100 per cent organic state" Sikkim has won the "Oscar for best policies" conferred by the Food and Agriculture Organisation.

The Award:

- The award for world's best policies promoting agro ecological and sustainable food systems
- The award is co-organised by the Food and Agriculture Organisation of the United Nations (FAO), the World Future Council (WFC) and IFOAM - Organics International.
- Sikkim is the first organic state in the world
- Sikkim's approach reaches beyond organic production and has proven truly transformational for the state and its citizens.

### **ESIC wins 'ISSA GOOD Practice Award, Asia & the Pacific 2018**

The Employees' State Insurance Corporation (ESIC) has won the 'ISSA Good Practice Award' at the Regional Social Security Forum for Asia and the Pacific.

Highlights:

- The award recognizes the measures taken by ESIC for extension of coverage- SPREE (Scheme for Promoting Registration of Employers and Employees)
- Reduced rate of contribution rates for 24 months in newly implemented areas and raising the wage limit for coverage under the ESI Act, etc.

About ISSA

- International Social Security Association (ISSA) is the principal international organization for Social Security Organizations, Govts. and Departments of Social Security.

### **2018 Seoul Peace Prize**

The Seoul Peace Prize Committee has decided to confer the 2018 Seoul Peace Prize on Prime Minister Shri Narendra Modi.

Highlights:

- In recognition of his dedication to improving international cooperation, raising global economic growth, accelerating the Human Development of the people of India by fostering economic growth.
- Furthering the development of democracy through anti-corruption and social integration efforts.
- Proactive foreign policy with countries around the world under the 'Modi Doctrine' and the 'Act East Policy.'

About The Seoul Peace Prize:

- Established in 1990 to commemorate the success of the 24th Olympic Games held in Seoul, Republic of Korea.
- The Prize has been awarded biennially to those individuals who have made their mark through contributions to the harmony of mankind, reconciliation between nations and to world peace.



---

**Commonwealth Association for Public Administration and Management(CAPAM) Award, 2018**

- The CAPAM Awards celebrate the spirit of innovation in the public service by recognizing organizations that have made significant contributions to improve governance and services in the public sector.
- The initiative entitled “Unnayan Banka- Reinventing Education Using Technology of Banka District, State of Bihar has been awarded under the Category “Innovation Incubation”.
- The initiative entitled “Unified Agriculture Markets” of Co-operation Department of Government of Karnataka has also been selected under the Category ‘Innovation in Public Service Management’. This initiative has also been awarded the overall Gold Award.

**Unnayan Banka:**

- It is an initiative which envisages “Quality education for all” especially for those at the bottom of the Pyramid, using latest technologies.
- It’s a holistic model of overall development of youths from Education to Employability.

**Carnot Prize to Minister of Railways and Coal**

Minister of Railways and Coal Piyush Goyal will receive the University of Pennsylvania's top prize in energy policy.

**Highlights:**

- Leadership in reforming India's power sector
- Spearheading efforts to fast-track electrification of thousands of remote villages
- Expanding renewable energy in the country.

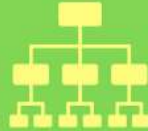
**About Carnot Prize:**

- The Carnot Prize is named in memory of French scientist Sadi Carnot, who in 1824 published Reflections on the Motive Power of Fire, which is recognised as the first statement of what is now known as the second law of thermodynamics.
- The Carnot Prize is intended to honour those leading revolutions in energy policy to further progress and prosperity.

## TEST SERIES ESE 2019 GS&APTITUDE



Integrated with  
the study plan



Individual and  
Cumulative Tests



Detailed  
Solutions



Simulating Actual  
Exam Environment



Detailed Post  
Exam Analysis

Registrations are now open  
[test series.adapala-academy.com](http://testseries.adapala-academy.com)

# IES GS Video Lectures



**Study from  
anywhere anytime**



**Extensive  
syllabus coverage**



**One year  
doubts support**



**Money back guarantee**



**Free online test series**

more details at [www.iesgeneralstudies.com](http://www.iesgeneralstudies.com)

# Adapala-Academy.com



**ESE Lectures**



**GATE Lectures**



**Discussion Forum**



**Online Test Series**