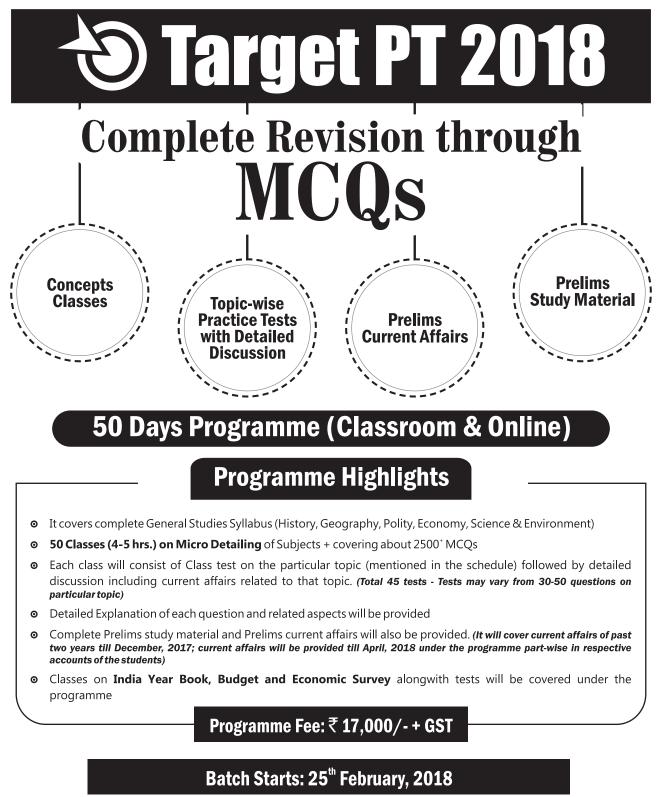


GS SCORE



Timings: 10:00 AM to 2:00 PM Duration: 25th February to 27th April, 2018

 Off. No. 6, Ist Floor, Apsara Arcade, Karol Bagh, New Delhi-110005 (Karol Bagh Metro Gate No. 5)

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Polity and Governance

1

Allahabad High Court Judge to be Impeached

Chief Justice of India (CJI) Dipak Misra has recommended the impeachment of Justice Shri Narayan Shukla, the eighth senior-most judge of the Allahabad High Court, following an adverse report about him by an in-house panel set up by the CJI.

Justice Shukla joined the Allahabad High Court in 2005 and was set to retire on July 17, 2020.

His orders in the cases of blacklisted private medical colleges in Lucknow had come under the scanner of the CJI Bench last year. He was accused of misconduct in the medical admissions scam.

Underlined Concepts

Procedure of High Court Judge Appointment

- Clause (1) of Article 217 says that "every judge of a High Court shall be appointed by the President, by warrant under his hand and seal after consultation with the Chief Justice of India, the Governor of the State, and, in the case of appointment of a Judge other than the Chief Justice, the Chief Justice of the High Court and shall hold office, in the case of an additional or acting judge, as provided in Article 224, and in any other case, until he attains the age of sixty-two years".
- A reading of this clause shows that while the appointment is made by the President, it has to be made after consultation with three authorities, namely, the Chief Justice of India, the Governor of the State and the Chief Justice the High Court. (Of course, in the matter of appointment of Chief Justice, the consultation with the Chief Justice

is not required). Just as the President is the constitutional head, so are the Governors.

- ► However, according to the practice, the Chief Justice of the High Court used to make the recommendation which was considered by the Governor of the State (Council of Ministers headed by the Chief Minister) who offered his comments for or against the recommendation.
- The matter then goes to the Central Government. At that stage, the opinion of the Chief Justice is sought and based upon such advice, the appointment is either made or declined, as the case may be.

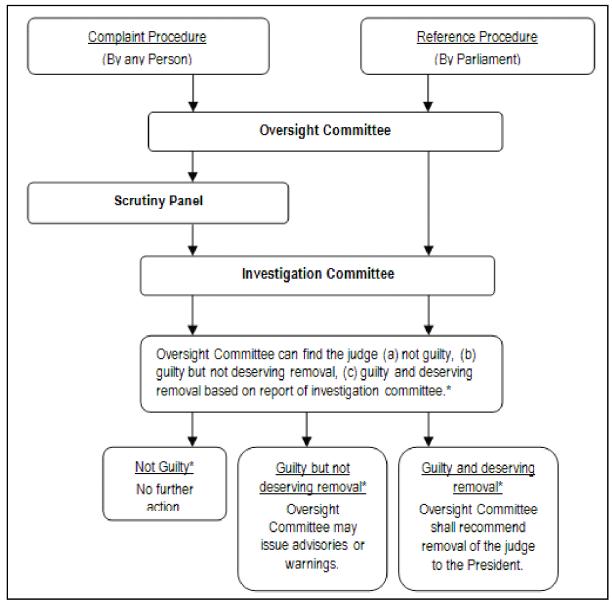
Procedure for removal of High Court Judge

 According to the Constitution, a judge can be removed only on grounds of misbehavior or incapacity. In this case, sources said, it is possible that a motion will be moved on the ground of conduct unbecoming a serious issue for both judiciary and the government.

- ➤ A judge may be removed from his office on the ground of (a) misbehavior or (b) incapacity. The removal involves the following steps:
 - A motion for presenting an address to the President praying for the removal of a judge must be signed by at least 100 members of the Lok Sabha (if notice is given in the Lok Sabha).
 - The Chairman or the Speaker (as the case may be) may consult such persons as he thinks fit and consider such material as may be available and may admit the motion or refuse to admit it.

consisting of 3 persons will be constituted of whom:

- One shall be from among the Chief Justice and judges of the Supreme Court.
- One shall be from among the Chief Justice and the judges of the High Court.
- One shall be a person who is a distinguished jurist.
- If the committee arrives at a finding that the judge is guilty of misbehaviour or suffers from an incapacity, then the motion for removal of the judge together with the report of the committee will be taken up for consideration in the House in which it is pending.
- The motion must be passed by each House by a majority of the total membership of that House and by a majority of not less than twothird of the members of that House present



• If the motion is admitted, a committee

and voting. After being so passed, the address is presented to the President.

Judges against which impeachment had been proposed

➤ In 1993, impeachment proceedings were initiated against Justice V Ramaswamy, who was caught in a controversy while he was the Chief Justice of the Punjab and Haryana High Court. But the impeachment motion failed after the Congress lawmakers abstained from voting.

- In 2011, Justice Soumitra Sen of Calcutta High Court stepped down after Rajya Sabha passed his impeachment motion. There were allegations of financial irregularities against him.
- ➤ The same year, Justice PD Dinakaran, the Chief Justice of Sikkim High Court who was accused of corruption, resigned before impeachment proceedings could be started against him.

2. Issue Related to Office of Profit

C The Election Commission has recommended the disqualification of 20 Aam Aadmi Party (AAP) MLAs from Delhi, citing that they held offices of profit. In 2016, the EC had issued show cause notices to 27 AAP MLAs who held offices as parliamentary secretaries, after a petition was filed seeking their disqualification.

Underlined Concepts

Definition of Office of Profit

- According to Article 102 (1) (a), a person shall be disqualified as a member of Parliament for holding any office of profit under the government of India or the government of any state, "other than an office declared by Parliament by law not to disqualify its holder". Article 191 (1) (a) has a similar provision for the members of state assemblies.
- ➤ The idea behind the concept of office of profit - which evolved in England - is to preserve the independence of the legislature by keeping the members away from any temptations from the executive that can come in the way of independent discharge of their duties.
- ➤ It also seeks to enforce the principle of separation of power between the legislature, the judiciary and the executive – a basic feature of the Constitution.

Criteria to define Office of Profit

A certain office will qualify to be an office of profit if-

SCORE

- ► Government makes the appointment.
- Government has the right to dismiss the office bearer at its will.
- ► Government pays the remuneration.
- Government exercises control over the functions of the office holder.
- > Office yields personal gains to the holder.

Parliamentary Secretaries

- ➤ A Parliament Secretary often holds the rank of Minister of State and has the same entitlements and is assigned to a government department.
- Parliamentary secretaries are appointed by Chief Minister and are deemed to be Ministers only for the purpose of ensuring better co-ordination between the executive and legislature. These secretaries by virtue of a Statute are involved with the sole purpose of planning and co-ordination of legislative and other official business in the state.
- But it is against the constitutional principles on the following grounds:

- Article 102 and 191 of the Constitution says that a person shall be disqualified for being chosen and for being a member of the House if he holds any office of profit under Government of India or any state government. The essence of this disqualification is that there should be no conflict between the duties and interests of an elected member.
- Article 164(1A) specifies that the number of ministers including the Chief Minister has to be within 15% of the total number of members of the Assembly. (10% in the case of Delhi, which is not a 'full' state). Over the last few years, courts across the country have struck down the appointment of Parliamentary Secretaries for violating the Constitution.

3. Operation Digital Board

L The Central Advisory Board of Education (CABE) has passed a resolution to take steps towards Operation Digital Board on the lines of Operation Blackboard of 1987.

The idea of Operation Digital Board is aimed at providing better digital education in all schools. This will offer new opportunities and new ways of teaching and learning to schools.

Underlined Concepts

Operation Blackboard

- Operation Blackboard is a centrally sponsored programme which was started in 1987.
- ➤ The major aims of Operation Blackboard were improving the quality of primary education: reducing the rate of wastage and stagnation: attracting more children especially girl children into the primary educational sector for realizing the dream of education for all.
- The scheme mainly focused on providing at least two classrooms in every primary school; necessary toilets exclusive for girls and boys; appointing women teachers at least fifty percentage of the total teachers etc.

Central Advisory Board of Education

➤ The Central Advisory Board of Education, the oldest and the most important advisory body of the Government of India in education was first established in 1920 and dissolved in 1923 as a measure of economy. It was revived in 1935 and has been in existence ever since.

- The function of CABE:
 - To review the progress of education from time to time;
 - To appraise the extent and manner in which the education policy has been implemented by the Central and State Governments, and other concerned agencies, and to give appropriate advice in the matter; and
 - To advice regarding coordination between the Central and State Governments/UT Administrations.

Navodaya Vidyalaya

- They are run by Navodaya Vidyalaya Samiti, New Delhi, an autonomous organization under the Department of School Education and Literacy, Ministry of Human Resource Development, Government of India.
- ► JNVs are fully residential and co-educational schools affiliated to Central Board of Secondary Education (CBSE), New Delhi, with classes from VI to XII standard.
- > JNVs are specifically tasked with finding talented



children in rural areas of India and providing them with an education equivalent to the best residential school system, without regard to their families' socio-economic condition.

Kendriya Vidyalaya

- The Kendriya Vidyalayas are a system of central government schools in India that were instituted under the aegis of the Ministry of Human Resource Development (MHRD).
- Its objective is to educate children of the Indian Defence Services personnel who are often posted to remote locations. With the army starting its own Army Public Schools, the service was extended (but not restricted) to all central government employees.
- ➤ A uniform curriculum is followed by these schools all over India. By providing a common syllabus and system of education, the Kendriya Vidyalayas are intended to ensure that the children of government employees do not face education disadvantages when their parents are transferred from one location to another.

EDUSAT

- 'EDUSAT', India's first thematic satellite dedicated exclusively for educational services, was used extensively to cater to a wide range of interactive educational delivery modes like one-way TV broadcast, video conferencing, computer conferencing, web-based instructions, etc.
- EDUSAT had manifold objectives to supplement the curriculum-based teaching, imparting

effective teacher training, providing access to quality resource and new technologies, thus finally resulting in taking education to every nook and corner of India.

 EDUSAT provided connectivity to schools, colleges and higher levels of education and also supported non-formal education including development communication.

Online Education Programmes

- 'SWAYAM' scheme provides an opportunity to students to access courses taught in classrooms from ninth standard to post graduation, that can be accessed by anyone, anywhere at any time.
- 'ePATHSHALA' disseminates all educational content through website and mobile app.
- 'Mid-Day Meal Monitoring App', 'Shaala Siddhi' and 'Shaala Darpan' that focus on quality of school administration and evaluate the schools and Kendriya Vidyalas to improve the quality of education.
- OLabs, i.e. online labs for school lab experiments provide students with ease of conducting experiments over internet.
- Swayam Prabha: It will provide high quality educational contents, developed by experts, through 32 DTH (direct to home) Television Channels with an aim to bring uniformity in standards of education.
- National Academic Depository: It is a digital depository of academic awards for authenticating all certificates issued by institutions.

4

State Cybercrime Coordination Cells

E Even though computers, smart phones and internet have become basic necessities all over the country, majority of the people have little or limited awareness about cyber crimes and the potential of misusing these facilities. As such, many people have been victims of cyber crimes.

National Crime Record Bureau (NCRB) states that 5,693, 9,622 and 11,592 cybercrime cases were registered during 2013, 2014 and 2015, respectively, showing a rise of 69% during 2013 to 2014 and 20% increase during 2014 to 2015.

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The Ministry of Home Affairs has asked all States and Union Territories to open cyber crime coordination cells headed by a senior police officer not below the rank of ADGP or IGP.

The MHA advisory also asked the State to provide awareness to all the people about cyber crimes and its negative impacts in the society.

Cyber crime coordination cells opened in different States would coordinate with each other under IT Act 2000 and also with all cyber crime units and police stations within their respective States in order to check cyber crimes across the country.

Further, it states opening of district cyber crime cells based on necessity. District cyber crime unit would be headed by DSPs or Additional SPs and they would be assisted by Inspectors and Sub-Inspectors. **J**

Underlined Concepts

Cyber Crimes

Cyber-crime encompasses any criminal act dealing with computers and networks.

Some common cyber-crimes are:

➤ Stalking

Cyber stalking is use of the Internet or other electronic means to stalk someone.

Hacking

"Hacking" is a crime, which entails cracking systems and gaining unauthorized access to the data stored in them.

Phishing

Phishing refers to the receipt of unsought emails by customers of financial institutions, asked them to enter their username, password or other personal information to access their account for some reason.

Squatting

Cyber-squatting is the act of registering a famous domain name and then selling it for a fortune.

Software Piracy

It is an illegal reproduction and distribution of software for business or personal use. This is considered to be a type of infringement of copy right and a violation of a license agreement.

Cyber pornography

This includes pornographic websites; pornographic magazines produced using computers (to publish and print the material) and the Internet (to download and transmit pornographic pictures, photos, writings etc).

Sale of illegal articles

This would include sale of narcotics, weapons and wildlife etc., by posting information on websites, auction websites, and bulletin boards.

National Cyber Coordination Centre

National Cyber Coordination Centre is an operational cyber security and e-surveillance agency in India. It is intended to screen communication metadata and co-ordinate the intelligence gathering activities of other agencies. Some have expressed concern that the body could encroach on Indian citizens' privacy and civil-liberties, given the lack of explicit privacy laws in the country.

> Cyber Warrior Police Force (CWPF)

The CWPF is likely to operate under National Information Security Policy and Guidelines wing of MHA's CIS division. It is proposed to be raised on lines of Central Armed Police Force (CAPF).



National Crime Records Bureau

The National Crime Records Bureau, abbreviated to NCRB, is an Indian government agency responsible for collecting and analysing crime data as defined by the Indian Penal Code (IPC).

- Objectives
 - Create and maintain secure sharable National Databases on crimes and criminals for law enforcement agencies and promote their use for public service delivery.
 - Collect and process crime statistics at the national level and clearing house of

information on crime and criminals both at National and International levels.

- Lead and coordinate development of IT applications and create an enabling IT environment for Police organizations.
- National repository of fingerprints of all criminals.
- To evaluate, modernize and promote automation in State Crime Records Bureaux and State Finger Print Bureaux.
- Training and capacity building in Police Forces in Information Technology and Finger Print Science.

5. Haj Subsidy Scrapped

L Haj subsidy which is borne by the government and extended to pilgrims travelling to Saudi Arabia could be phased out as early as 2018.

The Haj subsidy was a subsidy that was given to Indian Muslim Haj pilgrims by the Government of India in form of discounted Air fares on Indian Government owned Air India.

The SC in 2012 had directed the Centre to gradually abolish the Haj subsidy over a period of 10 years. The apex court also said the Centre should invest that amount in education and other development measures for the minority community.

Underlined Concepts

History of the Subsidy

- The history of Haj Committee dates back to 1927 under the British rule. The Haj Committee of Bombay used to manage the annual pilgrimage for Hajjis who used to embark on ships to Saudi Arabia from Bombay port, which used to be known as the Gateway to Mecca. Later ships were introduced from Calcutta as well.
- With ageing ships that used to carry pilgrims getting withdrawn, more and more people started travelling by air. It was also decided that Air India would carry the pilgrims and they would only have to pay the ship fare. By

1994, ship services were completely stopped. The government is considering the option to revive the Mumbai — Jeddah sea route in the new Haj policy for 2018 -2022 as a less expensive travel option for Haj pilgrims.

> About Subsidy

 e-Government had been steadily declining the amount of subsidy offered to Haj pilgrims each year. In 2014, the subsidised air fare charged for Haj, per pilgrim was Rs. 35,000, while the actual amount was anything between Rs. 63,750 and Rs. 1,64,350 depending on the point of boarding. By 2016, the amount paid by each pilgrim had risen to Rs. 45,000. In 2017, the Haj subsidy was cut down by almost 50 per cent of the expected cost.

> Violation of Fundamental Right

• Scheme contravene with Article 27 of the Constitution that states: "Freedom as to

payment of taxes for promotion of any particular religion. No person shall be compelled to pay any taxes, the proceeds of which are specifically appropriated in payment of expenses for the promotion or maintenance of any particular religion or religions denomination."

6. SRS under 5 Mortality Rate

C According to the Sample Registration System bulletin, the number of deaths of children under the age of 5 in India fell below 1 million for the first time.

Data:

- ► The under-5 mortality rate fell to 39 per 1,000 live births in 2016 from 43 in 2015; the total deaths of children under the age of 5 fell to 962,830, from 1,08,2397 the previous year.
- Immunization coverage going up from 1% annually to about 7% has helped prevent vaccine-preventable diseases like pneumonia, diarrhoea, infections etc.
- ► All states lowered the number of deaths of children under the age of 5 except Chattisgarh, Delhi and Uttarakhand, which registered a slight increase over the previous year. Telangana showed no change.
- India also managed to narrow the gender gap for child survival to 11% from 17% in 2014; the current under-5 mortality rate is 37 for boys and 41 for girls.
- Among the bigger states, Chattisgarh, Delhi, Gujarat, MP, Odisha, Tamil Nadu and Telangana have reversed the gender gap.
- ➤ The gender gap is the highest in Bihar (46% more girls dying before their fifth birthday), followed by Haryana (23%), Kerala (20%), Assam (19%), Karnataka (19%) and Rajasthan (17%).
- The neonatal (first 28 days of life) mortality rate also fell from 25 per 1,000 live births to 24 per 1,000.

Underlined Concepts

> Infant mortality rate

Counts deaths in children less than 12 months of age, divided by number of live births in same time period.

► Under-5 mortality rate

Counts deaths in the first 5 years of life, divided by number of live births in the hypothetical cohort of newborns.

Neonatal mortality rate:

Probability of dying during the first 28 days of life, expressed per 1,000 live births.

Sample Registration System

The SRS in India is based on a dual record system. The field investigation under Sample Registration System consists of continuous enumeration of births and deaths in a sample of villages/urban blocks by a resident part time enumerator, and an independent six monthly retrospective survey by a full time supervisor. The data obtained through these two sources are matched. The unmatched and partially matched events are re-verified in the field to get an unduplicated count of correct events. The advantage of this procedure, in addition to elimination of errors of duplication, is that it leads to a quantitative assessment of the sources of distortion in the two sets of records making it a self evaluating technique.

Schemes for improving child mortality rate

- India Newborn Action Plan (INAP) was launched in 2014 to make concerted efforts towards attainment of the goals of "Single Digit Neonatal Mortality Rate" and "Single Digit Stillbirth Rate", by 2030.
- Newer interventions to reduce newborn mortality have also been implemented, including- Vitamin K injection at birth, Antenatal corticosteroids in preterm labour,

Kangaroo Mother Care and empowering ANMs to provide Injection Gentamicin to young infants for possible serious bacterial infection.

- In order to increase awareness about the use of ORS and Zinc in diarrhoea, an Intensified Diarrhoea Control Fortnight (IDCF) was observed during July-August 2017, with the ultimate aim of 'zero child deaths due to childhood diarrhoea'. During fortnight health workers visited the households of under five children, conducted community level awareness generation activities and distributed ORS packets to the families with children under five years of age.
- Rashtriya Bal Swasthya Karyakram (RBSK) has been launched (Feb 2013) to provide strategic interventions to address birth defects, delays and deficiencies and reduce out of pocket expenditure for the families on treatment by expanding the reach of mobile health teams at block level and establishing District Early Intervention Centres (DEICs) in the districts.
- Birth Defects Surveillance System (BDSS) is being established - to serve as a tool for identifying congenital anomalies. It is as a collaborative effort between the MoHFW, GoI, WHO and CDC.
- **Mission Indradhanush:** Launched on 25th December, 2014, seeks to drive toward 90% full immunization coverage with all vaccines in the entire country by year 2020 with a high focus on the 201 identified districts.
- Mission Indradhanush Phase II has begun in 352 districts across the country (279 medium priority districts + 33 districts from North Eastern States + 44 districts from Phase I districts where large number of missed out children were detected during monitoring of phase I of Mission Indradhanush).

7.

National Urban Policy – Single Policy for Multiple States

Goal No. 11 of UN's Sustainable Development Goals requires world leaders to "make cities and human settlements inclusive, safe, resilient and sustainable". As per UN estimates, urban India will have 583 mn people by 2030, with an addition of 65 mn to the current urban population base. India will account for 18-19 per cent of the global increase in urban population and therefore its urban development indicators such as water supply, sanitation, garbage management etc will affect global averages. Also, Indian cities currently contribute 63 per cent of the country's GDP which is lower than the share of cities in most countries.

Thus the housing and urban affairs ministry has appointed a panel, headed by Smart City Mission Director Sameer Sharma, to develop a policy framework for designing National Urban Policy.

The National Urban Policy will focus on 10 main areas. These include cooperative federalism, agglomeration economies, harnessing rural-urban continuum, inclusive growth, sustainability, empowering local-level institutions, sound housing and urban infrastructure finance system, social justice and gender equity, and robust urban information system.

"

Underlined Concepts

UN-Habitat Report on India's Urbanization

- According to a draft note by UN-Habitat, India has moved from a 'business-as-usual approach' to paying systematic attention to urbanisation and its challenges. The paradigm changes it has brought while addressing the challenges of urbanisation are:
 - Taking urbanisation as an opportunity rather than a challenge.
 - Citizen-centric approach to align the development agenda of the cities with people's priorities and needs.
 - Cooperative federalism: Freedom and resources to states/urban local bodies

(ULBs) to design and implement.

- Focus on infrastructure that leads to delivery of services to citizens.
- Renewed focus on integrated planning through convergence and qualitative improvements.
- Commitment to environment sustainability
- Focus on inclusive growth.
- Technology to enhance efficiency of services delivery.
- Shift from project-based approach to outcome-based approach.

Schemes for Urban Development

• The Smart Cities Mission

- The Smart Cities Mission is a major urban renewal program launched by the Government to develop and upgrade living conditions and infrastructure in selected 100 cities all over the country.
- Objective of the programme is to modernize cities by providing core infrastructure and give a decent quality of life to its citizens, a clean and sustainable environment and application of 'Smart' Solutions.
- The main focus of the project is the area based development of cities by transforming existing areas through retrofitting and redevelopment.

o AMRUT

- AMRUT is aimed at transforming 500 cities and towns into efficient urban living spaces over a period of five years. Ministry of Urban Development has selected the five hundred cities with the help of state governments.
- Mission of AMRUT is to:
 - Ensure that every household has access to a tap with assured supply of water and a sewerage connection;
 - Increase the amenity value of cities by developing greenery and well

maintained open spaces (e.g. parks); and

- Reduce pollution by switching to public transport or constructing facilities for non-motorized transport (e.g. walking and cycling).
- Housing for All by 2022
 - The 'Housing for All by 2022' under the scheme of "Pradhan Mantri Awas Yojana – Housing for All (Urban)" launched by the central government aims to provide housing to all urban people by 2022.
 - It provides central assistance to States and UTs for constructing houses to all eligible sections by concentrating on urban slums and economically weaker sections.
 - The programme has following components:
 - Slum rehabilitation of Slum Dwellers with participation of private developers using land as a resource;
 - Promotion of Affordable Housing for weaker section through credit linked subsidy;
 - Affordable housing in partnership with Public & Private sectors; and
 - Subsidy for beneficiary-led individual house construction or enhancement.



Snippets related to Polity & Governance

A. Doctrine of "Res Extra Commercium"

- Res extra commercium ("a thing outside commerce") is a doctrine originating in Roman law, holding that certain things may not be the object of private rights, and are therefore insusceptible to being traded.
- Recently government has for the first time asked the Supreme Court to classify tobacco as "res extra commercium", a Latin phrase. If applied, the doctrine would have far reaching implications: in denying an industry's legal standing to trade, it gives authorities more leeway to impose restrictions.
- For example, the Supreme Court's application of the doctrine to alcohol in the 1970s paved the way for at least two Indian states to ban it completely and allowed courts to take a stricter stance while regulating liquor - something constitutional law experts say could happen with tobacco if a similar ruling was made.

B. Pradhan Mantri Surakshit Matritva Abhiyan

- The Pradhan Mantri Surakshit Matritva Abhiyan has been launched by the Ministry of Health & Family Welfare (MoHFW), Government of India. It has crossed one crore mark in antenatal check-ups.
- Aim: To provide fixed-day assured, comprehensive and quality antenatal care universally to all pregnant women on the 9th of every month.
- A package of antenatal care services would be provided to pregnant women in their 2nd / 3rd trimesters.
- Support from private sector doctors to supplement the efforts of the government.
- Identification and follow-up of high risk pregnancies and red stickers would be added on to the Mother and Child Protection cards of women with high risk pregnancies.
- OBGY specialists / Radiologist / Physicians

working in the private sector are encouraged to volunteer for the campaign. Just encouraged, No coercion.

C. Round 4 of Smart Cities

- Union Minister of Housing and Urban Affairs has announced a new batch of 9 smart cities under Smart City Mission. With the addition of these 9 smart cities in the fourth round, the total cities picked up under Smart City Mission have reached 99.
- The nine cities include three from Uttar Pradesh – Moradabad, Bareilly and Saharanpur; Bihar Sharif (Bihar); Silvassa (Dadra and Nagar Havelli); Erode (Tamil Nadu); Daman and Diu; Itanagar (Arunachal Pradesh) and Kavaratti (Lakshadweep). The selected nine cities have proposed an investment of Rs 12,824 crore. This will impact 35.3 lakh persons living in these areas.
- The Smart City Mission is flagship scheme of Union Government that will cover 100 cities and its duration is five years (2015-16 to 2019-20). The focus of mission is on sustainable and inclusive development and set examples which can be replicated in other parts of the city and other cities of the country.
- To develop a common minimum framework for cities to assess their existing status and chart their pathway towards providing a better quality of life to their citizens, the MoHUA has developed a set of 'Liveability Standards' relevant to Indian cities to generate a Liveability Index and rate cities. It will assess cities on comprehensive set of 79 parameters. These parameters includes local governance, education, employment, social infrastructure, health, safety, physical infrastructure such as housing, availability of open spaces, security, land use, energy, availability of water, solid waste management, pollution, etc.

D. Swachh Bharat Mission - Urban Launches Smart Star-Rating for Garbage Free Cities

 The Union Ministry of Housing and Urban Affairs (MoHUA) has launched the 'Protocol for Star Rating of Garbage-Free Cities' in Goa. It has been develop under Swachh Bharat Mission – Urban for rating cities on 7-star rating system based on multiple cleanliness indicators for solid waste management.

- Indicators: These include Door to Door garbage collection, source segregation, sweeping, scientific processing of waste, bulk generator compliance, , scientific land filling, construction and demolition management, plastic waste management, dump remediation & citizen grievance redressal system etc.
- Cities can be rated as 1, 2, 3, 4, 5 and 7 star based on their compliance with the protocol conditions specified for each of the rating. Further city should be ODF (Open Defecation Free) before it could be given rating of 3 star or above. While cities may self-declare themselves as 1-star, 2-star or 4-star, MoHUA will carry out an additional verification through an independent third party to certify cities as 3-star, 5-star or 7-star. Cities will need to get recertified themselves every year to retain their star-status.

E. Rapid Reporting System for the Scheme for Adolescent Girls

- The Union Ministry of Women and Child Development (WCD) has launched beneficiary module (i.e. Phase-1) of Rapid Reporting System (RRS), a web based online monitoring for Scheme for Adolescent Girls (SAG).
- The RRS portal will facilitate monitoring of SAG and take corrective measures by ensuring faster flow of information, accurate targeting of beneficiaries and reduction of leakages. It has been developed by Ministry of WCD in collaboration with National Informatics Centre (NIC).

F. Global Initiative on Academic Network

- The First Global Initiative on Academic Network GIAN course on Sustainable Urban planning using remote sensing and Geographic Information System, GIS has been launched at Indian Institute of Technology Kanpur's outreach center in NOIDA.
- Global Initiative of Academic Networks (GIAN) in Higher Education is a new Government scheme that aims to increase footfalls of reputed international faculty to Indian academic institutes; and thereby bring in

international academic excellence in India's higher education institutions.

• This programme was initially conceptualized as an Indo-US collaboration but was later its scope was extended. The programme is initially to be confined to IITs, IIMs, NITs and some central universities with 'A' Grade.

G. Stree Swabhiman

- Ministry of Electronics and Information Technology (MeITY) has launched Stree Swabhiman Initiative. Its aim is to create sustainable model for providing adolescent girls and women an access to affordable sanitary products by leveraging Common Service Centres (CSCs).
- Under this initiative, Common Service Centres (CSC) will provide access to affordable, reliable and modern (eco-friendly) sanitary napkins (menstrual pads) to adolescent girls and women in rural areas.
- Its purpose is to improve awareness on menstrual health and hygiene of women, thus help to protect dignity and rights of women.
- Under this initiative, semi-automatic and manual sanitary napkin manufacturing units will be set up at CSC for producing affordable and eco-friendly sanitary napkins. These micro manufacturing units will be operated by women entrepreneurs and generate employment for 8-10 women.

H. Chamba District Under List of Most Backward Districts of the Country

- Chamba has been declared as the backward district by Government of India. It is among the 115 districts selected by the Government of India in keeping with its vision of a New India by 2022.
- The Chamba district was selected as backward district in November 2017 when the Prime Minister launched a program to develop 115 most backward districts of the country under vision 2022 policy.
- Chamba is only district from Himachal Pradesh selected under the scheme. After being declared as backward district Chamba district would witness rapid development.

• Highlights of scheme:

• The Government of India in coordination

with the state government would provide funds to improve education, health, nutrition, basic infrastructure like rural road connectivity, rural household electrification, besides potable water and individual toilet facilities.

- While selecting these districts, it has been ensured that ministries of the Government of India, implementing social sector scheme, would select at least one most backward district in every state for extending the reach of the programme in different part of the country.
- Improvement in one district is likely to spur similar growth in the neighbouring districts through demonstration effect.
- Senior government officials have been designated as 'Prabhari Officers' or the in-charge to coordinate the efforts of the Centre and the states in addressing development activities.

I. Mahatma Gandhi Sarbat Vikas Yojana

- Punjab Government has launched Mahatma Gandhi Sarbat Vikas Yojna (MGSVY) for the welfare of the downtrodden citizen across the state.
- This scheme is aimed at the inclusive growth of the distressed sections of the society.
- It will be on the line of Antyodaya principles (Antyodaya' means rise of the last person) and will be implemented in the state's rural areas.
- Its purpose is to benefit 18 marginalized sections living in rural areas of state.
- It will provide benefit of welfare schemes for debt stressed farmer, poor families that have woman as sole bread earner, out-of-school children, martyred soldiers, families of AIDS patients, differently-abled, abandoned old persons, drug addicts etc.



1.

Defence Acquisition Council

- ▲ The Defence Acquisition Council (DAC) chaired by Defence Minister Nirmala Sitharaman approved capital acquisition proposals of the defence services, valued at Rs 15,935 crore.
 - These included the procurement of Light Machine Guns for the three services through the Fast Track Procedure at an estimated cost of over Rs. 1,819 crore.
 - ➤ The DAC also approved the procurement of seven lakh forty thousand assault rifles for the three services. These rifles will be made by the Ordnance Factory Board and the private industry at an estimated cost of Rs 12,280 crore.
 - The DAC has also approved the procurement of 5,719 sniper rifles for the army and the air force at an estimated cost of Rs 982 crore.

Underlined Concepts

Acquisition Procedure

Indian defence procurement framework at present comprises of a two-tiered structure, comprising the Defence Acquisition Council (DAC) and its subordinate bodies - Defence Procurement Board, Defence Research and Development Board and the Defence Production Board.

The second tier is Acquisition Wing, headed by the Special Secretary (Acquisition) and it handles all matters concerning defence acquisitions of capital nature. It assists the Defence Procurement Board in its functioning. The Special Secretary (Acquisition) is assisted by a Financial Adviser (FA) Acquisition drawn from Defence (Finance). FA (Acquisition) functions as an Integrated Financial Adviser to the Special Secretary (Acquisition).

The Acquisition Wing consists of Land, Maritime and Air Divisions dealing with the Army, Navy and Air Force respectively and a Systems Division responsible for systems having tri-service applicability and medical equipment. Each of the Divisions has an Acquisition Manager (a Joint Secretary level officer), a Technical Manager (Major General Equivalent Defence Service Officer) and a Finance Manager (Additional Financial Advisor level officer from Defence Finance).

Defence Acquisition Council Functions

The functions of the DAC include:

- a. In-principle approval of 15 Year Long-Term Integrated Perspective Plan for Defence Forces;
- b. Accord of Acceptance of Necessity to acquisition proposals;
- c. Categorization of the acquisition proposals relating to 'Buy', 'Buy & Make' and 'Make';
- d. Issues relating to Single vendor clearance;
- e. Decision regarding 'offset' provisions in respect of acquisition proposals above Rs. 300 crores;
- f. Decisions regarding Transfer of Technology under 'Buy & Make' category of acquisition proposals; and
- g. Field Trial evaluation.

> DPP 2016: Categories

'Buy (Indian-IDDM)' Category - DPP-2016 has introduced a new procurement category, Buy (Indian–Indigenously Designed, Developed and Manufactured), or 'Buy (Indian – IDDM)'.

In terms of prioritisation, the new category, which would also be used for procurement of all locally designed and developed items under the revamped 'Make' procedures, is placed above the existing 'Buy (Indian)' category which, in turn, is placed above the other categories, namely the 'Buy and Make (Indian)', 'Buy and Make' and 'Buy (Global)', in that order. Under the new category, indigenously designed equipment with 40 per cent indigenous content (IC), or equipment not necessarily designed in-house but having a 60 per cent IC, is intended for procurement from the local industry.

2. Agriculture Growth Stumbles Despite Higher Rainfall

C The country, on the whole, received more rainfall in 2017, spread over the winter, pre-monsoon, monsoon and post-monsoon seasons, than in the previous year (see table). Yet, the Central Statistics Office expects agricultural growth during 2017-18 to be only 2.1 per cent, as against last year's 4.9 per cent. The Agriculture Ministry's data, too, shows a drop in crop acreages this time, both in the kharif and the ongoing rabi planting seasons.

Reasons for reduction

- The main reason is the distribution of the rainfall. The whole of Rajasthan, Uttar Pradesh (UP), Madhya Pradesh (MP), Chhattisgarh and Vidarbha — even Punjab-Haryana for that matter, though farmers there have access to assured irrigation — has recorded very little rainfall after July. The extended dry spell in this contiguous agricultural belt has affected the rabi crop prospects in particular.
- Lack of adequate soil and subsoil moisture has led to a reduction in wheat sowing area by 14.46 lakh hectares (lh) this year compared to 2016-17. Much of it is accounted for by MP (down 8.64 lh), UP (2.12 lh), Maharashtra (1.65 lh) and Rajasthan (1.49 lh).

The other major rabi crop, rapeseed-mustard, has also registered significant acreage decline of 3.52 lh, led by Rajasthan (7.09 lh) even while partially made up through higher plantings in other states such as UP and MP.

Underlined Concepts

> Kharif crops:

- From July to October
- Harvest in September to October
- Known as Monsoon Crops
- In Arabic, Kharif means autumn
- Kharif crops need a lot of water.
- The Kharif crops include rice, maize, sorghum, Tea, Coffee, Rubber, Sesame, Guar, Cereals like Pearl Millet, Arhar Dhal, Soybeans, Oilseeds, Cotton etc.

▶ Rabi crops:

- Sown in October November
- Harvest in February April
- Known as Winter Season Crops
- Require cold weather for growth
- Consumes less water

 The rabi crops include wheat, barley, oats, cereals, pulses, linseed, oilseeds, Chickpea, Rape and Mustard Seed.

Zaid crops:

- Sown in March to June (between Kharif and Rabi).
- Needs warm dry weather for growth and longer day length for flowering.
- Vegetables and Seasonal fruits.

Central Statistics Office

The Central Statistics Office (CSO) is a governmental agency in India under the Ministry of Statistics and Programme Implementation responsible for co-ordination of statistical activities in India, and evolving and maintaining statistical standards.

The Central Statistics Office is responsible for coordination of statistical activities in the country, and evolving and maintaining statistical standards. Its activities include National Income Accounting; conduct of Annual Survey of Industries, Economic Censuses and its follow up surveys, compilation of

Very low Rainfall Region:	>30 cm. annually
	Regions: Karakoram Ranges, Northern Kashmir, western Kutch and Rajasthan Region (Thar Region).
Low Rainfall Region:	30 cm60 cm. annually
	Regions: Zaskar range, parts of Punjab and Haryana, Central Rajasthan, Western Gujarat and the rain-shadow areas of the Western Ghats.
Moderate Rainfall Region:	60 cm100 cm. annually
	Found over greatest part of India
	Most of the rain is from the South-West Monsoon winds.
Heavy Rainfall Region:	100 cm. to 200 cm. annually
	Regions: Western coast, Eastern coastal belt, Foothills of the Himalayas & a part of north-east India.
Very Heavy Rainfall:	Over 200 cm. annually
	Regions : Western side of the Western Ghats, foothills of Himalayas, Meghalaya plateau (Shillong plateau) and Andaman and Nicobar Islands
	'Mawsynram' in Meghalaya plateau gets the heaviest rainfall in the world.

Index of Industrial Production, as well as Consumer Price Indices for Urban Non-Manual Employees, Human Development Statistics, Gender Statistics, imparting training in Official Statistics, Five Year Plan work relating to Development of Statistics in the States and Union Territories; dissemination of statistical information, work relating to trade, energy, construction, and environment statistics, revision of National Industrial Classification, etc.

Rainfall Distribution in India

- The rainfall in India is seasonal, uncertain and unevenly distributed.
- Mainly pours down during the South-West Monsoon period.
- On the basis of the quantity of rainfall, we can divide India into five major rainfall regions viz.

3. New Bidding Method to Give States Cheap Power

G Government is proposing new bidding method in which new centralised bidding will be held and quotations for lump sum tariffs will be invited from power developers.

This will also involve power aggregation and disbursement in accordance with cost and the demand from states.

Power developers would bid against the cap on fixed cost.

Tariffs for coal-based power plants consist of "fixed cost" and "variable cost". Fixed cost is the capital cost of the power plant and variable cost comprises the cost of fuel, transportation, etc. When a state has a power purchase agreement (PPA) with a developer, it has to pay the fixed charge even when not procuring power. This was hitting their already languishing power distribution companies (discoms). The idea now is to reduce the fixed cost so that the impact on the discoms' finances is minimal.

The government will also set up a power aggregator, which will call tenders and collate bids. It will disburse power to states wishing to procure this "low fixed-cost" electricity. State-owned Power Trading Corporation (PTC) would be the aggregator and Power Finance Corporation (PFC) was drafting the bid document.

Underlined Concepts

Power Purchase Agreement

A power purchase agreement (PPA), or electricity power agreement, is a contract between two

parties, one which generates electricity (the seller) and one which is looking to purchase electricity (the buyer).

A PPA is the principal agreement that defines the



revenue and credit quality of a generating project and is thus a key instrument of project finance.

> Power Finance Corporation Limited

PFC is under the administrative control of the Ministry of Power. PFC was conferred the title of a 'Navratna CPSE' in June, 2007, and was classified as an Infrastructure Finance Company by the RBI on 28th July, 2010.

PFC plays a crucial role in the rise of India as a global player. Increasingly, a country's development is gauged by measuring its energy usage. With a large fraction of our nation still, unfortunately, without any access to electricity, PFC will become an increasingly important factor in the years to come.

Power Trading Corporation

PTC India Limited was born in April 1999 out of the need for an institution which would provide credit risk mitigation to private power project developers. At a point in time when no private player was willing to venture into this arena, the Government initiated the inception of the Company. PTC is a unique example of a successful Public-Private Partnership where the diverse representation on its Board of Directors sets the tone for its transparent governance practices.

PTC is a pioneer in starting a power market in India and undertakes trading activities which include long term trading of power generated from large power projects as well as short term trading arising as a result of supply and demand mismatches, which inevitably arise in various regions of the country.

> Schemes by Ministry of Power

- Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) for rural areas: The scheme provides for: (a) Separation of agriculture and non-agriculture feeders; (b) Strengthening and augmentation of sub-transmission and distribution infrastructure in rural areas including metering at distribution transformers, feeders and consumers end; and (c) Rural Electrification.
- Integrated Power Development Scheme (IPDS) for urban areas: The scheme provides for: (a) Strengthening of sub-transmission and distribution networks in urban areas; (b) Metering of distribution transformers/

feeders/consumers in urban areas; and (c) IT enablement of distribution sector and strengthening of distribution network.

- Operationalization of Power System Development Fund (PSDF): PSDF shall be utilized for the project proposed by distribution utilities for: (a) Creating necessary transmission system of strategic importance; (b) Installation of shunt capacitors etc. for improvement of voltage profile in the grid; (c) Installation of standard and special protection schemes; and (d) Renovation and Modernisation of transmission and distribution systems for relieving congestion; etc.
- Launching of Ujwal Discom Assurance Yojana (UDAY): The scheme has been launched for operational and financial turnaround of Discoms. UDAY seeks to empower loss making Discoms to break even in two-three years by helping the Discoms in improving their operational efficiencies (compulsory smart metering, upgradation of transformers, popularising LED bulbs), reducing the cost of power (increased supply of cheaper domestic coal, liberal coal swaps from inefficient to efficient plants, supply of washed and crushed coal, faster completion of transmission lines), minimising their interest cost (states to take over 75% of Discom debt as on 30 September 2015 over two years -- 50% of Discom debt to be taken over by states in 2015-16 and 25% in 2016-17).
- Saubhagya Scheme: Saubhagya, seeks to ensure universal household electrification, that is, in both rural and urban areas. Under Saubhagya, beneficiaries will be identified using the Socio Economic and Caste Census (SECC) 2011 data. The identified poor households will get free electricity connections. Other households not covered under the SECC, will be provided electricity connections at a cost of Rs 500. This amount will be collected by the electricity distribution companies in 10 instalments.

The state discoms will execute the electrification works through contractors or other suitable agencies. Information technology (mobile apps, web portals) will be used to organise camps in villages to identify beneficiaries. In order to accelerate the process, applications for electricity connections will be completed on the spot.

4. Long Term Capital Gains Tax

Government has introduced long-term capital gains tax of 10 percent if the gains exceed Rs 100,000 without allowing the benefit of indexation. However, all gains till 31st January 2018 will be grandfathered and short term capital gains remains unchanged at 15 percent.

For example, if the equity share is purchased 6 months before 31st January 2018 at Rs100 and the highest price quoted on 31st Jan is Rs120. There will be no tax on the sale, if the stock is sold after 1 year. However, any gains in excess of Rs20 earned after 31st Jan 2018 will be taxed at 10 percent if this share is sold after 31st July 2018.

Underlined Concepts

► About Capital Gains Tax

Any profit or gain that arises from the sale of a 'capital asset' is a capital gain. This gain or profit is charged to tax in the year in which the transfer of the capital asset takes place.

Capital gains taxes are only triggered when an asset is realized, not while it is held by an investor.

Capital gains are not applicable when an asset is inherited because there is no sale, only a transfer.

Capital asset is defined to include:

- Any kind of property held by an assesse, whether or not connected with business or profession of the assesse.
- Any securities held by a FII which has invested in such securities in accordance with the regulations made under the SEBI Act, 1992.

However, the following items are excluded from the definition of "capital asset":

Any stock-in-trade, consumable stores, or raw materials held by a person for the purpose of his business or profession.

Capital Gains Tax in case of Property

The income tax rules define gain in two broad categories; namely short term capital gain (STCG)

and long term capital gain (LTCG). If investors buy and sell assets within 3 years, this comes under short term capital gain. If investors buy real estate, keep it for more than 3 years and sell, it comes under long term capital gain.

➤ When will the new LTCG tax become effective?

The new tax will be levied on redemption of equity mutual fund units or sale of shares after April 1, 2018, provided they have been held for more than one year. So if you sell before on or before March 31, 2018, there will be no long-term capital gains tax. If the mutual fund units/stocks are sold before one year of holding, short term capital gains tax apply. The short-term capital gains tax has been kept unchanged at 15 per cent.

What is the new LTCG tax rate on equity mutual funds/stock market investments?

The long-term capital gains exceeding Rs. 1 lakh arising from redemption of mutual fund units or equities on or after April 1, 2018 will be taxed at 10 per cent (plus cess). This includes long-term capital gains earned from equity or mutual fund investments put together in a financial year. Suppose a person earn Rs. 2 lakh in combined long-term capital gains from stocks or mutual fund investments in a financial year. The taxable



long-term capital gains will be Rs. 1 lakh (Rs. 2 lakh - Rs. 1 lakh) and tax liability will be Rs. 10,000 (10 per cent of Rs. 1 lakh).

What is 'grandfathering' clause in LTCG?

The 'grandfathering' clause is the exemption granted to existing investors or gains made by

them before the new tax law comes into force. Whenever the government introduces a stricter tax law, it has to ensure that investors who have committed money keeping in mind the easier tax regime are protected. In the matter of LTCG tax on shares, the government said gains from shares or equity mutual funds made till January 31, will be grandfathered - or exempted. There will be no LTCG tax on notional profit in shares till then.

5. Govt 2.1 Lakh Crore Bank Recapitalization Plan

C The government has announced the details of the Rs. 2.1 lakh crore recapitalisation plan for public sector banks (PSBs) in October 2017, including a reforms package across six themes including aspects like customer responsiveness, responsible banking, and increasing credit offtake.

The guidelines are:

- The capital infusion for the PSBs would be contingent on performance, and the whole-time directors of the PSBs would be assigned themewise reforms to oversee.
- The recapitalisation package would follow a differentiated approach for banks that have been assigned for prompt corrective action (PCA) and those that have not.
- ➤ In financial year 2017-18, the recapitalisation amount for PCA banks would be Rs. 52, 311 crore, of which the largest beneficiaries include IDBI (Rs. 10,610 crore), Bank of India (Rs. 9,232 crore), UCO Bank (Rs. 6,507 crore), and Central Bank of India (Rs. 5,158 crore).
- ➤ The recapitalisation amount for non-PCA banks for this year is Rs. 35,828 crore, with the largest beneficiaries being State Bank of India (Rs. 8,800 crore), Punjab National Bank (Rs. 5,473 crore), and Bank of Baroda (Rs. 5,375 crore).
- The recapitalisation amount for PCA banks would be used for support to maintain their regulatory capital requirements, and to strengthen their governance and operations. The amount for non-PCA banks is to be used for investment in growth capital.
- Recapitalization bonds would not have an impact on the fiscal deficit as they would be "cash neutral."

Recapitalization bonds will not have a statutory liquidity ratio (SLR) requirement and would be non-tradeable and priced at a three-month average plus the spread.

Underlined Concepts

> What is a Recapitalisation Bond?

A bond is a financial instrument used to raise money from the markets. If someone buys a government bond, for example, they hand over a certain amount of money in return for regular interest payments along with the expectation that the government will repay the amount in full at a certain point of time. In a way, it is like giving a loan to the government.

However, bank recapitalisation bonds are slightly different. These are bonds issued by the government to which banks can subscribe – and they are specifically aimed at banks that have a lot of deposits on hand. According to Reserve Bank of India estimates, the total excess deposits accrued to the banking system due to demonetisation was in the range of Rs 2.8 lakh crores to Rs 4.3 lakh crore. It is these excess deposits that the banks are expected to use to buy the recapitalisation bonds.

The Government is likely to use the money raised by the sale of these bonds to increase the number of shares it holds in the banks. This will give the banks more capital to work with, making it easier for them to offset the effect of writing off bad loans.

Meanwhile, the bonds could even be marketable, meaning the banks could put them out into the market to raise even more money.

What is EASE (Enhanced Access and Service Excellence)?

The recap would be accompanied by a strong reforms package across six themes incorporating 30 action points. The reforms agenda is based on the recommendations made at the PSB Manthan held in November, 2017 involving senior management of PSBs and representatives from Government. The reform agenda is aimed at EASE - Enhanced Access and Service Excellence, focusing on six themes of customer responsiveness, responsible banking, credit off take, PSBs as Udyami Mitra, deepening financial inclusion & digitalisation and developing personnel for brand PSB. The overarching framework for the reforms agenda is "Responsive and Responsible PSBs".

Prompt Corrective Action (PCA)

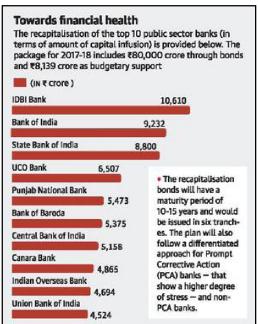
The prompt corrective action (PCA) initiated by the central bank follows the rise in bad loans in these lenders and envisages placing restrictions on operations. With this, the number of banks under PCA has risen to 10. All of the banks are in the public sector.

Once PCA is triggered by the regulator, the bank faces restrictions on spending money on opening branches, recruiting staff and giving increments to employees. Further, the bank can disburse loans only to those companies whose borrowing is above investment grades.

The PCA framework is applicable only to commercial banks and not extended to cooperative banks, non-banking financial companies (NBFCs) and FMIs.

The RBI will consider 4 key factors to determine whether the bank in question deserves to be brought under the PCA. Let us look at these 4 categories and their thresholds:

- The first criterion is the Capital Adequacy Ratio (CAR). The CAR is a measure of how much equity and debt capital the bank has to cushion its asset to book risk.
- The second criterion is asset quality which is defined as the net Non Performing Assets of the bank, net of provisions.
- > The third criterion is profitability.
- The last criterion is the total debt level or leverage, which measures the financial risk of the bank.



GSSCORE



Snippets related to ECONOMY

A. National CSR Data Portal

The Union Ministry of Corporate Affairs (MCA) has launched National CSR Data Portal & Corporate Data Portal for bringing accountability and transparency for corporate India. The portals aim to provide easy accessibility to general public and also ensure high level of compliance. It will also help in institutionalising and consolidating the CSR activities.z

The portal will capture information on Corporate Social Responsibility (CSR) activities carried out by eligible companies, filed on MCA21 registry in their financial statements. It will contain all filed information that can help to generate pre-defined reports with respect to expenditure across states, districts and development sectors.

B. Credit Score Meaning

- A credit score determines how creditworthy a person is and helps banks and financial institutions decide on loans. A person with a high credit score enjoys access to credit facilities without hassles.
- ➤ In India, the scores are issued by credit reporting agencies such as CIBIL, Equifax, Experian and the like. These agencies are regulated by the RBI and collect data from banks on their loans and come up with credit scores through use of algorithms. The data is updated frequently. Credit scores in India range from 300-900.

C. Bitcoin investors in India served income tax notices as trading hits \$3.5 billion

- India has sent tax notices to tens of thousands of people dealing in crypto currency after a nationwide survey showed more than \$3.5 billion worth of transactions have been conducted over a 17-month period.
- Bitcoin is a digital currency created in 2009. It follows the ideas set out in a white paper by the mysterious Satoshi Nakamoto, whose true identity has yet to be verified. Bitcoin offers the promise of lower transaction fees than traditional online payment mechanisms and is operated by a decentralized authority, unlike government-issued currencies.
- > There are no physical bitcoins, only balances

kept on a public ledger in the cloud, that – along with all Bitcoin transactions – is verified by a massive amount of computing power. Bitcoins are not issued or backed by any banks or governments, nor are individual bitcoins valuable as a commodity.

D. Saksham 2018

Saksham (Sanrakshan Kshamta Mahotsav) is an annual flagship event of Petroleum Conservation Research Association (PCRA) under the aegis of Ministry of Petroleum & Natural Gas, Govt. of India , with active involvement of the Oil & Gas PSUs along with other stakeholders like State Governments, for creating focused attention on fuel conservation through people centric activities and to sensitize the masses about the conservation and efficient use of petroleum products leading to better health and environment.

E. Direct Tax Collections for F.Y. 2017-2018

➤ Provisional figures of Direct Tax collections up to 15th January, 2018 show that net collections are at Rs. 6.89 lakh crore which is 18.7% higher than the net collections for the corresponding period of last year. The net Direct Tax collections represent 70.3% of the total Budget Estimates of Direct Taxes for F.Y. 2017-18 (Rs. 9.8 lakh crore). Gross collections (before adjusting for refunds) have increased by 13.5% to Rs. 8.11 lakh crore during April, 2017 to 15th January, 2018. Refunds amounting to Rs.1.22 lakh crore have been issued during April, 2017 to 15th January, 2018.

F. Milk Production

- Milk production which was around 17-22 million tonnes in the 1960s, increased to 165.4 million tonnes in 2016-17. Particularly, it increased by 20.12% during the year 2016-17 in comparison to 2013-14.
- ➤ Per capita availability of milk increased from 307 grams in 2013-14 to 355 grams in 2016-17, registering a growth of 15.6%. Income of Dairy farmers grew by 23.77% during the period 2014-17 in comparison to 2011-14.
- ► India continues to be the largest milk producer in the world and the credit goes to

the Government initiatives for implementing various schemes to increase the productivity of milch animals.

G. National Investment and Infrastructure Fund (NIIF) makes its First Investment

- ► The National Investment and Infrastructure Fund (NIIF) has made its First investment today.
- NIIF has partnered with DP World to create an investment platform for ports, terminals, transportation and logistics businesses in India.
- ➤ The platform will invest in opportunities in the ports sector, and beyond sea ports into areas such as river ports and transportation, freight corridors, port-led special economic zones, inland container terminals, and logistics infrastructure including cold storage.

► Facts about NIIF

- NIIF created for enhancing infrastructure financing, could also consider other nationally important projects.
- NIIF is being set up with a corpus of about Rs.40,000 crore & is proposed to be set up as a Trust.
- It would raise debt to invest in the equity of infrastructure finance companies such as Indian Rail Finance Corporation (IRFC) and National Housing Bank (NHB).
- The idea is that these infrastructure finance companies can then leverage this extra equity, manifold.
- In that sense, NIIF is a banker of the banker.
- NIIF got registered with SEBI as Category II Alternative Investment Fund (AIF).

H. GeM 3.0 launched

- ➤ The Ministry of Commerce & Industry has launched third version of the Government e-Marketplace (GeM 3.0). The earlier version GeM 2.0 was launched as pilot project in August 2016.
- GeM 3.0 will offer standardised and enriched catalogue management, powerful search engine, real time price comparison, template-based Bid and RA creation, demand aggregation, e-EMD, e-PBG, user rating, advanced MIS and analytics and more.
- GeM is an Online Market platform to facilitate procurement of goods and services by various

Ministries and agencies of the Government. It has been envisaged as National Procurement Portal of India.

I. Panel for AIFs

- ➤ A committee of the Securities and Exchange Board of India (SEBI) has recommended suitable tax as well as regulatory framework for alternative investment industry.
- The regulator had constituted a 21-member standing committee — Alternative Investment Policy Advisory Committee — in March 2015 with the mandate to prepare a new regulatory framework for alternative investments.
- According to the report, the panel has suggested a suitable tax and regulatory framework for the domiciliation of AIFs in International Financial Services Centres (IFSCs). This is to incentivise offshore fund managers (who invest in India but operate from abroad) to shift their fund management and administration to the country.
- The panel has also recommended for allocation of Corporate Social Responsibility (CSR) funds to Category I AIF — Social Venture Funds. The report said that the nominee and nonexecutive directors appointed by AIFs on the boards of their portfolio companies should be exempted from the provisions of the Goods and Services Tax (GST).
- The panel has also suggested promoting AIFs with foreign limited partners in IFSCs, a move that will enhance the development of the Indian capital markets. It has also suggested exemption from tax for any income earned by an offshore investor from investments made outside India through an AIF in an IFSC as well as relaxation from filing return of income and obtaining PAN for offshore investors in IFSCs.
- Apart from this, the panel has recommended implementing an investor-level taxation approach for Category III AIFs. Under such a regime, such AIFs will pay tax on income/gains arising from investment in units of Category III AIFs.
- ➤ The report has suggested exemption to listed AIFs for all streams of income earned by listed AIFs on its investments in Indian portfolio entities.

J. Real Interest Rate vs Natural Rate Definition

 The natural rate of interest is that interest rate which causes neither overheating (boom) or lack of demand (recession). Monetary policy is essentially concerned with finding the natural rate – because that will give the best economic outcome of low inflation and economic growth.

 A real interest rate is an interest rate that has been adjusted to remove the effects of inflation to reflect the real cost of funds to the borrower and the real yield to the lender or to an investor. The real interest rate of an investment is calculated as the amount by which the nominal interest rate is higher than the inflation rate:

Real Interest Rate = Nominal Interest Rate - Inflation (Expected or Actual).

5

Science & Technology

1.

Facial Authentication Working

C The UIDAI or Unique Identification Authority of India has allowed face recognition as an additional means of Aadhaar authentication. The new method, called face authentication, will be used in combination with existing ways such as fingerprint or iris scan, as per the UIDAI. Face authentication - using the photograph fed into the Aadhaar system at the time of enrolment - will be an optional mode of authentication, in addition to the two existing modes (fingerprint and iris), according to the UIDAI.

The move is aimed at providing easy authentication for those individuals who face a difficulty in other biometric authentication like fingerprint and iris.

> What is Aadhaar Authentication?

Aadhaar authentication is the process by which the Aadhaar number along with the demographic information or biometric information of an Aadhaar number holder is submitted to the Central Identifies Data Repository (CIDR) for verification. The CIDR verifies the correctness, or the lack thereof, on the basis of the information available with it.

Aadhaar authentication is being used as the primary identity verification mechanism by many systems such as Banks, Telecom companies, PDS, Income Tax, etc. which are mandated through various laws and also by a number of private entities.

> Benefits of Face Authentication

- The UIDAI listed the following advantages of face authentication:
- Face authentication will provide additional choice to create inclusive authentication for residents having difficulty with

their fingerprints/iris authentication.

- Since face photo is already available in UIDAI database there is no need to capture any new reference data at UIDAI CIDR.
- Camera is now pervasively available on laptops and mobiles making the face capture easily feasible for AUAs without needing any additional hardware.
- Face authentication with liveness detection can be used as an additional factor to increase security.

Underlined Concepts

Face Recognition

A facial recognition system is a computer application capable of identifying or verifying a person from a digital image or a video frame from a video source. One of the ways to do this is by comparing selected facial features from the image and a face database.

Facial recognition analyzes the characteristics of a person's face images input through a digital video camera. It measures the overall facial structure, including distances between eyes, nose, mouth, and jaw edges. These measurements are retained in a database and used as a comparison when a user stands before the camera.

Biometric Verification

Biometric verification is a means by which a person can be uniquely identified by evaluating one or more distinguishing biological traits. Unique identifiers include fingerprints, hand geometry, earlobe geometry, retina and iris patterns, voice waves, DNA, and signatures.

The two main types of biometric identifiers depend on either physiological characteristics or behavioral characteristics.

Physiological identifiers relate to the composition of the user being authenticated and include facial recognition, fingerprints, finger geometry (the size and position of fingers), iris recognition, vein recognition, retina scanning, voice recognition and DNA matching.

Behavioral identifiers include the unique ways in which individuals act, including recognition of typing patterns, walking gait and other gestures. Some of these behavioral identifiers can be used to provide continuous authentication instead of a single one-off authentication check.

2. Generic Drugs: New Rules Soon for Labellig

L In a bid to promote low-cost generic medicines, the health ministry plans to make it mandatory for pharma firms to carry the generic names of drugs in letters that are two font sizes larger than the brand name.

Once notified under the Drugs and Cosmetics Act, any violation will be punishable under the law.

Fixed dose combinations (FDCs) of vitamins and other drugs

containing three or more drugs, will be exempted from the new labelling rules.

Earlier, the Drug Technical Advisory Board (DTAB), the advisory body on drugs, approved an amendment to Rule 96 of the Drugs and Cosmetics Act that sought changes in the labelling of drugs to boost generic drugs. Rule 96 deals with the manner of labelling drugs.

Underlined Concepts

What are Generic Drugs?

to market.

- A generic drug is a pharmaceutical drug that is equivalent to a brand-name product in dosage, strength, route of administration, quality, performance and intended use, but does not carry the brand name.
- The generic drug may differ from the original in non-essential characteristics such as colour, taste and packaging.
- Although they may not be associated with a particular company, generic drugs are usually subject to government regulations in the countries where they are dispensed. They are labelled with the name of the manufacturer and a generic non-proprietary name.
- A generic drug must contain the same active ingredients as the original brand-name formulation.
- In most cases, generic products become available after the patent protections afforded to a drug's original developer expire.
- Generic medicines tend to cost less than their brand-name counterparts because they do not have to repeat animal and clinical (human) studies that were required of the brandname medicines to demonstrate safety and effectiveness. In addition, multiple applications for generic drugs are often approved to market a single product; this creates competition in the marketplace, typically resulting in lower prices.

Significance of Generic Drugs

 Although generic drug active ingredients are chemically identical to their branded counterparts, they are typically sold at a cheaper price than the brand-name drug. Generics are less expensive because the drug manufacturer does not have to duplicate the original clinical trials for effectiveness and safety, which lowers the cost to bring the drug ► Jan Aushadhi Scheme

- To increase the use of generic drugs in India, government has initiated the Jan Aushadhi Campaign. The objectives are:
- Promote greater awareness about cost effective drugs and their prescription.
- Make available unbranded quality generic medicines at affordable prices through publicprivate partnership.
- Encourage doctors, more specifically in government hospital to prescribe generic medicines.
- Enable substantial savings in health care more particularly in the case of poor patients and those suffering from chronic ailments requiring long periods of drug use.

National Pharmaceutical Pricing Authority

- The National Pharmaceutical Pricing Authority (NPPA) is a government regulatory agency that controls the prices of pharmaceutical drugs in India.
- The NPPA regularly publishes lists of medicines and their maximum ceiling prices.
- Functions
 - To implement and enforce the provisions of the Drugs (Prices Control) Order in accordance with the powers delegated to it.
 - To deal with all legal matters arising out of the decisions of the Authority.
 - To monitor the availability of drugs, identify shortages, if any, and to take remedial steps.
 - To collect/ maintain data on production, exports and imports, market share of individual companies, profitability

of companies etc, for bulk drugs and formulations.

- To undertake and/ or sponsor relevant studies in respect of pricing of drugs/ pharmaceuticals.
- To recruit/ appoint the officers and other staff members of the Authority, as per rules and procedures laid down by the Government.
- To render advice to the Central Government on changes/ revisions in the drug policy.
- To render assistance to the Central Government in the parliamentary matters relating to the drug pricing.

Central Drugs Standard Control Organization

The Central Drugs Standard Control Organization (CDSCO) is the national regulatory body for Indian

pharmaceuticals and medical devices, and serves parallel function to the European Medicines Agency of the European Union, the PMDA of Japan, the Food and Drug Administration of the United States and the Medicines and Healthcare products Regulatory Agency of the United Kingdom.

Within the CDSCO, the Drug Controller General of India (DCGI) regulates pharmaceutical and medical devices, under the gamut of Ministry of Health and Family Welfare. The DCGI is advised by the Drug Technical Advisory Board (DTAB) and the Drug Consultative Committee (DCC). It is divided into zonal offices which do pre-licensing and post-licensing inspections, post-market surveillance, and recalls when needed.

ی. Mass Embryo Transfer

C Department of Animal husbandry, Dairying and Fisheries in cooperation with 12 States has undertaken a Mass Embryo Transfer programme in Indigenous Breeds under the scheme, National Mission on Bovine Productivity.

The programme is implemented with the objective of conservation and development of indigenous breeds under Rashtriya Gokul Mission.

Through the use of ETT, (i) a farmer can get a 5-6 fold increase in number of offsprings, (ii) the calves so born will be of high genetic merit and (iii) the offsprings born will be free from diseases.

Under this programme, embryos of higher genetic merit indigenous bovines such as Sahiwal, Gir, Red Sindhi, Ongole, Deoni, and Vechur were transferred into surrogate cows. These cows were identified by UID and are under observation.

Underlined Concepts

Embryo Transfer Technology

Embryo transfer is a specialized technique of

breeding. A sexually mature female referred to as the donor is injected with exogenous hormones to produce. Ova (the female reproductive cell or gamete of animals, which is capable of developing, into a new individual) which are fertilized inside her either by natural or artificial service. These are then removed prior to their implantation and transfer to the reproductive tracts of synchronized surrogate mothers of the same species referred to as the recipients. The fertilized ova, thus are developed in the recipient body and resulting offspring derive their genes from the donor and from the male to which donor was bred.

Steps for improving cattle population

Steps undertaken by the Government for development of cattle population in the country is as under:

- Rashtriya Gokul Mission has been launched in December 2014 for the development and conservation of indigenous bovine breeds thereby enhancing milk production and productivity. The framework of the scheme is to enhance milk production & productivity through induction of high genetic merit bulls for semen production; field performance recording; strengthening of bulls mother farms; setting up of Gokul Grams etc.
- ➤ National Programme for Bovine Breeding is being implemented for enhancing productivity of milch animals through extension of Artificial Insemination (AI) coverage. This is done through establishment of Multi Purpose AI Technicians in Rural India (MAITRIS); strengthening of existing AI centres; monitoring of AI etc.
- ► National Mission on Bovine Productivity has been launched in November 2016 with the aim of enhancing milk production and productivity and thereby making dairying more remunerative to the farmers. The scheme is being implemented with following components:
 - Pashu Sanjivni- this component includes identification of animals in milk using UID, issuing health cards to all animals in milk and uploading data on INAPH data base;

- Advance reproductive Techniqueunder the component sex sorted semen production facility is being created at 10 A graded semen stations and 50 Embryo Transfer Technology Labs with IVF facilities are being created in the country;
- Creation of e-Pashu Haat Portal. The e-Pashu Haat portal has been launched in November 2016 for linking farmers and breeders of indigenous breeds; and
- Establishment of National Bovine Genomic Centre for Indigenous Breeds(NBGC-IB):
- The NBGC-IB is being established for enhancing milk production and productivity through genomic selection among indigenous breeds.
- Two National Kamdhenu Breeding Centres are being established one in the State of Andhra Pradesh for southern region and other in Madhya Pradesh for northern region of the country with the aim of development and conservation of indigenous breeds in a scientific manner and thereby enhancing milk production and productivity.
- National Dairy Plan-I a World Bank assisted project being implemented in 18 major dairy States with aim of enhancing milk production and productivity in order to meet demand of milk in the country through strengthening of semen stations; bull production programme (progeny testing and pedigree selection), ration balancing programme etc.
- Government has also established three subordinate organizations namely:
 - Central Cattle Breeding Farms (CCBFs);
 - Central Herd registration Scheme; and
 - Central Frozen Semen Production & Training Institute.
- These organizations are also undertaking genetic upgradation of milch animals through supply of disease free high genetic merit bulls for semen production and natural service for use in the breeding programme being implemented by the States.



Snippets related to SCIENCE & TECH.

A. India test fires AGNI 5

- India has successfully tested Agni-V, validating the long range surface-to-surface ballistic missile's reliability.
- Agni-V, with a range of over 5,000 km, is India's longest range ballistic missile and can reach most parts of China, making it the mainstay of India's triad to deliver nuclear weapons.
- ➤ The navigation systems, very high accuracy Ring Laser Gyro based Inertial Navigation System (RINS) and the most modern and accurate Micro Navigation System (MINS) had ensured the missile reached the target point within few metres of accuracy.
- ➤ India entered the super-exclusive club of countries with ICBMs (missiles with a range of over 5,000-5,500km) like the US, Russia, China, France and the UK.
- The missile's canister-launch version makes it deadlier because it gives the armed forces the requisite operational flexibility to swiftly transport and fire the missile from anywhere they want.
 - ISA is partnership of solar resource rich 121 countries for harnessing solar as an energy resource
 - Most of these are countries with a large participation from Africa, Southeast Asia, and Europe
 - ISA is part of India's climate change commitments
 - India will host the secretariat of ISA and put initial fund
 - Nine firms, including NTPC, Amplus Solar, Gensol, CLP India, YES Bank, etc

B. Indian to set up 350 mn Solar Fund

- In order to kick-start fund mobilisation under the International Solar Alliance (ISA), the central government will set up a \$350-million solar development fund.
- India has one of the fastest-growing renewable energy programmes in the world

and the country would achieve its target of 175 gigawatt of installed renewable energy capacity well by 2020.

C. Fungi based Concrete

- If micro-cracks expand and reach the steel reinforcement, not only the concrete will be attacked, but also the reinforcement will be corroded, as it is exposed to water, oxygen, possibly CO2 and chlorides, leading to structural failure.
- These cracks can cause huge and sometimes unseen problems for infrastructure. One potentially critical example is the case of nuclear power plants that may use concrete for radiation shielding. While remaking a structure would replace the aging concrete, this would only be a short-term fix until more cracks again spring up.
- A new self-healing fungi concrete, codeveloped by researchers at Binghamton University, State University of New York, could help repair cracks in aging concrete permanently.

D. Aircraft carrier Vikrant

- ➤ The Vikrant class (formerly Project 71 Air Defence Ship (ADS) or Indigenous Aircraft Carrier (IAC)) is a class of aircraft carrier being built for the Indian Navy. The class represents the largest warships and the first aircraft carriers to be designed and built in India.
- ➤ The delay on part of Russia in supplying aviation items has impeded the commissioning of Indigenous Aircraft Carrier (IAC) Vikrant and the warship is expected to be commissioned by October 2020.
- Vikrant borrows its name from India's first aircraft carrier, the 20,000-tonne INS Vikrant purchased from the U.K. India currently operates the 44,500-tonne INS Vikramaditya procured from Russia.
- Like INS Vikramaditya, Vikrant too would employ the STOBAR (Short Take-Off But Arrested Recovery) mechanism with a skijump and arrestor cables to launch and recover aircraft.
- ► It can operate 20 fighter jets and 10 other aircraft. The MIG-29K fighters currently in





service with the Navy would also be on the deck of Vikrant.

E. INSPIRE Scheme

- "Innovation in Science Pursuit for Inspired Research (INSPIRE)" is an innovative programme sponsored and managed by the Department of Science & Technology for attraction of talent to Science.
- ➤ The basic objective of INSPIRE is to communicate to the youth of the country the excitements of creative pursuit of science, attract talent to the study of science at an early age and thus build the required critical human resource pool for strengthening and expanding the Science & Technology system and R&D base.
- > It is a programme with long term foresight.
- ► INSPIRE has three components:
 - Scheme for Early Attraction of Talent (SEATS)
 - Scholarship for Higher Education (SHE)
 - Assured Opportunity for Research Careers (AORC)

F. MRI

- MRI, or magnetic resonance imaging, machine use a powerful magnetic field to produce images of the body's organs.
- Magnetic resonance imaging is a medical imaging technique used in radiology to form pictures of the anatomy and the physiological processes of the body in both health and disease.
- MRI scanners use strong magnetic fields, electric field gradients, and radio waves to

generate images of the organs in the body.

 MRI does not involve X-rays and the use of ionizing radiation, which distinguishes it from CT or CAT scans.

G. Super Blood Blue Moon

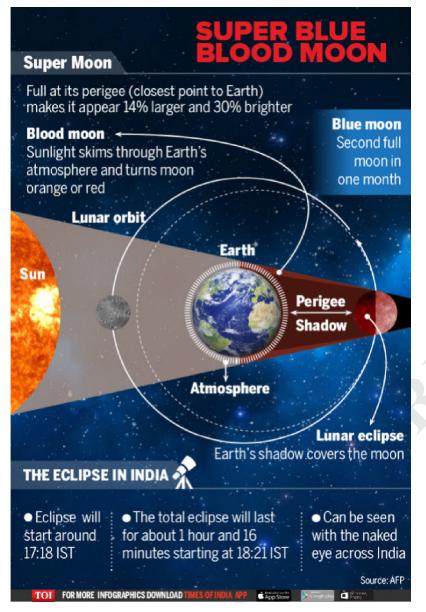
- Recently on early hours of January 31, a full moon, a total lunar eclipse, a blue moon and a supermoon occurred – all at the same time.
- ► What makes the moon look full?
- Like the Earth, half the moon is illuminated by the sun at any one time. The moon orbits around the Earth and as a result we see different amounts of the lit-up side.
- ➤ A full moon is when we see its entire lit-up side. This occurs every 29.5 days, when the moon is directly opposite the sun relative to the Earth.

What's a Lunar Eclipse?

- ➤ The moon's orbit is tilted by about 5 degrees relative to the Earth's orbit. So, most of the time the moon ends up a little above or below the path Earth follows as it revolves around the sun. But twice in each lunar cycle, the moon does cross into our planet's orbital plane.
- If that crossing corresponds to a full moon, the moon will pass into the Earth's shadow, resulting in a total lunar eclipse. Since the moon needs to be behind the Earth, relative to the sun, a lunar eclipse can only happen on a full moon.

► A Blue Moon that Looks Red

When a lunar eclipse happens, the moon appears to darken as it moves into the Earth's shadow called the Umbra. When the moon is all the way in shadow it doesn't go



completely dark; instead, it looks red due to a process called Rayleigh scattering. The gas molecules of Earth's atmosphere scatter bluer wavelengths of light from the sun, while redder wavelengths pass straight through.

H. MEITY launches Cyber Surakshit Bharat

The Ministry of Electronics and Information Technology (MeitY) has launched Cyber Surakshit

Bharat initiative to strengthen cybersecurity ecosystem in India in line of Government's vision for a 'Digital India'. It was launched in association with National e-Governance Division (NeGD) and industry partners..

Objective: Spread awareness about cybercrime and building capacity for safety measures for Chief Information Security Officers (CISOs) and frontline IT staff across all government departments. It will conduct series of training programmes across country in the next six months.

I. SARAS PT1N makes its Maiden Flight

SARAS PT1N, the new upgraded version of indigenous transport aircraft SARAS developed by National Aeronautics Laboratory (NAL) successfully made its maiden flight..

SARAS PT1N (14 seater) designed and developed by CSIR-National Aerospace Laboratories (CSIR-NAL), a frontline aerospace research laboratory, has successfully made its maiden flight.

The primary objective is to evaluate the system performance in about 20 flights and the data collected from this shall be used to freeze the design of production version aircraft. The production version aircraft will be of 19 seat capacity and will undergo civil / military certification.

J. Kilopower Project

The Kilopower project is a near-term technology effort to develop preliminary concepts and technologies that could be used for an affordable fission nuclear power system to enable long-duration stays on planetary surfaces.

The principal goal of the project is to sufficiently develop and test nuclear power system technologies by 2018 so fission power can be a viable option for NASA decision makers to consider when making their informed selection of exploration surface systems.



Environment

Organic Carbon for Carbon Sequestration

- **G** > Climate change is a serious issue the world is facing today. Rising atmospheric concentrations of carbon dioxide (CO_{2}) and other greenhouse gases (GHGs) are key contributing factors.
 - \blacktriangleright While the increasing concentration of CO₂ is primarily associated with fossil fuel combustion, about 10% of the increase is estimated to be caused by changes in land use, including conversion of forest land for food production.
 - ▶ Significant carbon pools on earth are found in the earth's crust, oceans, atmosphere and land-based ecosystems.
 - ▶ Soils, especially managed agricultural soils, have the potential to store (sequester) carbon (C) and contribute to mitigation of GHGs emissions. Increasing the amount of organic C in soils may not only mitigate GHG emissions, but also benefit agricultural productivity through improvements in soil health and environmental quality by reducing soil erosion.
 - ► Soils contain roughly 2,344 Gt (1 gigatonne = 1 billion tonnes) of organic carbon, making this the largest terrestrial pool.

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Underlined Concepts

Greenhouse Gases

A greenhouse gas is a gas in an atmosphere that absorbs and emits radiant energy within the thermal infrared range. This process is the fundamental cause of the greenhouse effect.

The primary greenhouse gases in Earth's

atmosphere are water vapor, carbon dioxide, methane, nitrous oxide, and ozone.

Greenhouse gases are those that absorb and emit infrared radiation in the wavelength range emitted by Earth. In order, the most abundant greenhouse gases in Earth's atmosphere are:

- Water vapor is the most abundant and dominant GHG in the atmosphere. Its concentration depends on temperature and other meteorological conditions, and not directly upon human activities.
- ➤ CO₂ is the primary anthropogenic greenhouse gas, accounting for 77% of the human contribution to the greenhouse effect in 2004.
- ► The second-most important greenhouse gas for the enhanced greenhouse effect is methane (CH4). Methane is created predominantly by bacteria that feed on organic material where there is a lack of oxygen. It is therefore emitted from a variety of natural and human-influenced sources. Natural sources include wetlands, termites, and oceans. Human-influenced sources include the mining and burning of fossil fuels, livestock husbandry (cattle eat plants that ferment in their stomachs, so they exhale methane and their manure contains it), rice cultivation (flooded paddy fields produce methane since organic matter in the soil decomposes without sufficient oxygen) and landfills (again, organic waste decomposes without sufficient oxygen).
- Nitrous oxide (N2O) is released naturally from oceans and rainforests and by bacteria in soils. Human-influenced sources include nitrogenbased fertilizers, fossil fuel combustion and industrial chemical production using nitrogen, such as sewage treatment.
- ➤ Fluorinated greenhouse gases are the only greenhouse gases that do not occur naturally, but have been developed by man for industrial purposes. Their share of greenhouse gas emissions from industrialized countries is around 1.5%. But they are extremely powerful-they can trap heat up to 22,000 times more effectively than CO2-and they can stay in the atmosphere for thousands of years.

Soil Carbon

Soil C exists in two forms: Inorganic and Organic. Soil Inorganic Carbon (SIC) is the result of both weathering of the parent materials and carbonic acid (CO2 dissolved in water) in the soil, precipitating as C minerals such as calcite, aragonite, and dolomite.

Organic material is manufactured by plants using carbon dioxide from the air and water. Plants (and animals, as part of the food chain), die and return to the soil where they are decomposed and recycled. Minerals are released into the soil and carbon dioxide is released into the atmosphere.

Soil organic carbon accounts for less than 5% on average of the mass of upper soil layers, and diminishes with depth.

In addition to helping mitigate climate change as resulted from increased soil C storage, use of recycled organic materials into soils results in a range of important environmental benefits.

These benefits include:

- Improved soil health, water saving, and crop productivity.
- Reduced need for chemical fertilizers and pesticides.
- > Reduced soil erosions by water and wind.
- Improved soil tilth.

Carbon Sequestration

Carbon sequestration is the process involved in carbon capture and the long-term storage of atmospheric carbon dioxide.

Carbon sequestration involves long-term storage of carbon dioxide or other forms of carbon to mitigate or defer global warming. It has been proposed as a way to slow the atmospheric and marine accumulation of greenhouse gases, which are released by burning fossil fuels.

Artificial processes have been devised to produce similar effects, including large-scale, artificial capture and sequestration of industrially produced CO2 using sub-surface saline aquifers, reservoirs, ocean water, aging oil fields, or other carbon sinks.



Snippets

Snippets related to ENVIRONMENT

A. No El-Nino but the warming of Earth continues

- According to the UK Met Office and the two US organisations - the US space agency (NASA) and National Oceanic and Atmospheric Administration (NOAA) 2017 was the third hottest year on record.
- At the same time, NASA and researchers from a nonprofit in Berkeley, California, called it the second.
- ➤ The global average temperature in 2017 was 58.51 degrees (14.7 degrees Celsius), which is 1.51 degrees (0.84 Celsius) above the 20th century average and just behind 2016 and 2015.
- > Impact of El Nino and La Nina
 - El Niño years tend to be the warmest years on record. In a La Niña year, the oceanic pendulum tends to swing the other way, with the east-to-west trade winds becoming unusually strong, strengthening the process by which cold waters emerge from the ocean. That leads to cooler than normal ocean temperatures and, as a result, cooler atmospheric temperatures.

B. Mercedes Unveils India's first BS-VI Car

- German auto major Mercedes-Benz has unveiled a BS-VI compliant S-Class produced at its Pune facility, more than two years ahead of the government deadline of April 2020 for switching to new emission norms.
- About BS Norms
 - The Bharat norms are emission control standards put in place by the government to keep a check on air pollution. Based on the European regulations (Euro norms), these standards set specifications/limits for the release of air pollutants from equipment using internal combustion engines, including vehicles. Typically, the higher the stage, the more stringent the norms.
 - BS VI, particulate matter emission for diesel cars and nitrogen oxide levels are expected to be substantially lower than in BS IV.

Petrol Emission Norms (All figures in g/km)						
Emission Norm	со	HC	NOx	HC+NO	k PM	
BS-III	2.30	0.20	0.15			
BS-IV	1.00	0.10	0.08			
Euro 6	1.00	0.10	0.06		0	005
Diesel Emission Norms (All figures in g/km)						
Emission Norm	со	HC	NOx	HC+NOx	PM	
BS-III	0.64		0.50	0.56	0.05	
BS-IV	0.50		0.25	0.30	0.025	
Euro 6	0.50		0.06	0.17	0.	005
Source - Indian Emissions Regulations/ARAI						

- Carbon Monoxide emissions are more evident in Petrol engines. Long Term exposure can prevent oxygen transfer and increase headaches/nausea.
- HC emissions are Hydrocarbons which are again more prevalent in Petrol engines. Short term exposure can cause headaches, vomiting and disorientation.
- NOx emissions are Nitrogen Oxide emissions which are more prevalent in Diesel engines. Long Term exposure can cause nose and eye irritation and damage lung tissues.
- PM is Particulate matter, again more prevalent in a Diesel engine. Long term exposure can harm the respiratory tract and reduce lung function.

C. ROADKILLS App

- A mobile-based application, 'Roadkills' was launched on January 21 by the Wildlife Conservation Trust, will help citizens in reporting wildlife deaths by uploading geotagged photographs to a public forum. The data generated can be used to identify crucial road or rail stretches that urgently require mitigation measures.
- ► Roadkills, an easy-to-use android app, accesses

location information from phones and permits users to upload photographs of a dead wild animal on a road or a railway line.

With the resulting geotagged photographs, users can also include what taxon the animal belongs to (bird, mammal, reptile or amphibian), the species' name (if known) and the area where the roadkill was seen.

D. Red Alert on the Green Index

- ▶ India ranks low in the Environmental Performance Index (EPI) 2018, slipping from rank 141 in 2016, to 177 in 2018.
- ➤ The EPI is produced jointly by Yale University and Columbia University in collaboration with the World Economic Forum. In comparison, emerging peer economies, Brazil and China, rank 69 and 120, respectively. The EPI ranks countries on 24 performance indicators across 10 issue categories.
- ► Top 5 countries are Switzerland, France, Denmark, Malta and Sweden.

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- The countries at the bottom of index are Nepal, India, Congo, Bangladesh, and Burundi.
- The report has ranked India as fourth worst country worldwide in curbing environmental pollution.

E. Automated Moorings

- India is all set to have its own automated ocean pollution observation system which will help in keeping a tab on ocean pollution levels apart from offering insights on how the marine system is changing.
- The new ocean data acquisition system, called automated moorings, will do away with the present practice of collecting water samples from sea and studying their pollution levels thereafter.
- Indian National Centre for Ocean Information Services (INCOIS), an autonomous body under the Ministry of Earth Sciences, is working on this technology.

International Affairs

l. Doklam Issue

C Doklam Plateau in Bhutan has become the bone of contention between India and China, sparking a perilous military standoff.

The recent report claims that China has almost completely taken control of the northern side of the disputed plateau. According to the Army Chief General, this is disputed territory between Bhutan and China. There has been a reduction in the strength of Chinese troops there. But there is the possibility that they could come back (in force) after the winter.

Underlined Concepts

Location of the plateau

- Doklam Plateau is an 80-89 square km plateau with average altitude of 4,000-4,500 meters, located in Western Bhutan. It is a disputed territory claimed by both Bhutan and China.
- It juts north into the Chumbi Valley with India (Sikkim) to the north-west, west and south-west and Tibet to the north, east and south-east.
- The trijunction of India, Bhutan and Tibet is on the north-western edge of the Doklam Plateau where the Batang La post of India is located and north-west of which along the crest line are the Indian defences of Sikkim.

> China-Bhutan-India

 China and Bhutan have agreed via written agreements of 1988 and 1998 that both countries will agree to maintain peace and the status quo in the region.

 However in June this year, India accused China of constructing a road in the disputed territory towards Doklam plateau, an objection that the Royal Bhutanese Army has also raised. India



intervened in the crisis supporting Bhutan's stand and asking China to halt its construction work.

> Why India intertwined?

 In a 1949 treaty, Bhutan agreed to let India guide its foreign policy and defense affairs. In 2007, the treaty was superseded by a new friendship treaty that replaced the provision that made it mandatory for Bhutan to take India's guidance on foreign policy with broader sovereignty and not require Bhutan to obtain India's permission over arms imports.

Significance of Chumbi Valley for China

 First, China gains proximity to India's North-East and Siliguri Corridor, which connects North-Eastern states to India and Nepal to Bhutan.

- Second, with access to Chumbi valley, China gets closer to Bangladesh's periphery in the North since only a narrow stretch of land divides Bangladesh from Bhutan.
- By enhancing connectivity and getting an overarching influence over the Chumbi Valley, China gets a better hold over Tibet, thus weakening any potential cards which India would want to play at a later stage. Further, with well laid out road/railway infrastructure, it also gets an offensive advantage to thwart India's military posturing. According to sources, six roads so far have been built by China near Bhutan's North and North-West areas.

BBIN C Bangladesh, India and Nepal have agreed on the text of the operating procedures for passenger vehicle movement in the sub-region under the Bangladesh-Bhutan-India-Nepal (BBIN) Motor Vehicles Agreement (MVA) signed in June 2015, and will soon complete the internal approval processes for signing of the passenger protocol. The participating countries have also agreed to conduct more trial runs for cargo vehicles under the agreement.

Underlined Concepts

> About BBIN

- The Bangladesh, Bhutan, India, Nepal (BBIN) sub-regional initiative is envisioned to improve economic cooperation and connectivity among the four South Asian countries.
- It has been initiated with an aim to promote safe, cost effective and environmentally sound road transport in the sub-region and further help each country in creating an institutional mechanism for sub-regional integration and boosting economic development of the region through mutual cross border movement of passenger and goods.
- Though the cost of implementation of the MVA will be borne by individual countries on their own, ADB (Asian Development Bank), under the SASEC (South Asia Subregional Economic Cooperation) framework will play a key role in the progress of the plan. With an aim to promote regional prosperity and boost trade by improving cross border connectivity, SASEC was set up in 2001, which includes India, Bangladesh, Bhutan, Maldives, Nepal and Sri Lanka as member countries.
- The Asian Development Bank (ADB) has been providing technical, advisory, and financial support to the BBIN MVA initiative as part of



its assistance to the South Asia Sub-regional Economic Cooperation (SASEC) program, a projects-based economic cooperation initiative that brings together the BBIN countries, Maldives, Sri Lanka and more recently, Myanmar. ADB is the secretariat of SASEC.

Benefits mainly related to India

- It will strengthen trade relations with the Eastern (Bangladesh) and North Eastern (Bhutan and Nepal) neighboring countries.
- It will improve the sub-regional connectivity in order to realize regional connectivity goals with South-east Asia.
- It will develop the North Eastern Region of India through cross-border cooperation.

> Why Bhutan has not ratified it?

 India, Bangladesh and Nepal have ratified the MVA, after Foreign Ministers of the BBIN nations signed an agreement to allow ease of motor vehicular traffic on June 15, 2015.

- Bhutan's National Assembly or Lower House had cleared the Bill and forwarded it to the National Council or Upper House in July 2016, with the hope it would be passed by year end.
- However, protests from the Opposition, mainly over environmental concerns of vehicular pollution increasing have derailed the process. In the 25-member National Council, the government faced sharp questions on the number of vehicles that would be allowed into the country via the Southern trading point of Phuentsholing and road capacities.
- Also the transporters of Bhutan had been the main agitators against the agreement.
- The taxi operators pointed out that there had been a sharp rise in road accidents as the surface of the road between Kharbandi and Phuntsholing had already been damaged due to heavy vehicles plying for the nearby hydropower projects under construction. The situation could get worse with the agreement.

3.

India's Entry to Australia Group

L India has joined the Australia Group. Its entry would be mutually beneficial and further contribute to international security and non-proliferation objectives.

Benefits of joining Australia group

India's entry would enable it to "implement the obligations arising from the Australia Group's Guidelines and Common Control Lists including its reporting requirements, information exchange and principles".

"

Underlined Concepts

About Multilateral Export Control Regime

A Multilateral Export Control Regime (MECR) is an international body that states use to organize

their national export control systems. There are currently four such regimes:

 The Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies.

GS SCORE

- The Nuclear Suppliers Group (NSG), for the control of nuclear related technology.
- The Australia Group (AG) for control of chemical and biological technology that could be weaponized.
- The Missile Technology Control Regime for the control of rockets and other aerial vehicles capable of delivering weapons of mass destruction.
- (India is member of all except NSG)

What is Australia Group (AG)?

The Australia Group (AG) is an informal forum of countries which, through the harmonisation of export controls, seeks to ensure that exports do not contribute to the development of chemical or biological weapons.

Coordination of national export control measures assists Australia Group participants to fulfil their obligations under the Chemical Weapons Convention and the Biological and Toxin Weapons Convention to the fullest extent possible.

This is achieved by members through the harmonisation of export controls like using

licensing measures.

> When was it established?

It was established in the background of use of chemical weapons (in the form of nerve agents and sulphur mustard) by Iraq in the Iran-Iraq war in the 1980s.

Members: 42 countries + European Union

Argentina, Australia, Austria, Belgium, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, European Union, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Republic of Korea, Latvia, Lithuania, Luxembourg, Malta, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom, and United States.

➤ How does it work?

Australia Group gives a set of guidelines and a technology list to its participant countries.

The participant countries are supposed to incorporate the guidelines and technology list in their export controls systems.





Snippets related to INTERNATIONAL AFFAIRS

A. India Japan Coast Guard Exercise

➤ The biennial search and rescue exercise between Indian Coast Guard (ICG) and Japan Coast Guard (JCG) was held near Chennai, Tamil Nadu in Bay of Bengal. This was eighth such in series of 'National Maritime Search and Rescue Workshop and Exercise'. Ships and aircraft of Coast Guards from India and Japan, Indian Navy and Indian Air Force (IAF) and National Institute of Ocean Technology (NIOT) took part in it.

B. Vajra Prahar

- ➤ The Indo-US joint military exercise 'Vajra Prahar' held at Joint Base Lewis-McChord (JBLM) in Seattle in third week of January in line with the increasing military cooperation between both countries.
- The aim of the Vajra Prahar exercise is to promote military relations between two countries by enhancing interoperability and mutual exchange of tactics between Special Forces. Its objectives are:
 - To Share best practices between two armies.
 - Develop joint strategies by sharing expertise of conducting operations in a counter-insurgency and counter-terrorism environment.
 - Capitalise on rich repository of experiences of each other armies.

C. International Workshop on Disaster Resilient Infrastructure

- The two-day International Workshop on Disaster Resilient Infrastructure (IWDRI) successfully concluded in New Delhi, setting the stage for taking the dialogue on resilient infrastructure forward at the global level.
- The Workshop identified Best Practices in the Infrastructure Sector, as well as key issues in existing practices and ways to address them. Priority areas for collaboration on Disaster

Resilient Infrastructure were also identified.

- The Workshop was organised by the National Disaster Management Authority (NDMA) jointly with United Nations Office for Disaster Risk Reduction (UNISDR).
- National Disaster Management Authority, abbreviated as NDMA is an agency of the Ministry of Home Affairs whose primary purpose is to coordinate response to natural or man-made disasters and for capacity-building in disaster resiliency and crisis response. NDMA was established through the Disaster Management Act enacted by the Government of India.
- UNISDR is part of the United Nations Secretariat and its functions span the social, economic, environmental as well as humanitarian fields. UNISDR supports the implementation, followup and review of the Sendai Framework for Disaster Risk Reduction adopted by the Third UN World Conference on Disaster Risk Reduction on 18 March 2015 in Sendai, Japan. The Sendai Framework is a 15-year voluntary, non-binding agreement that maps out a broad, people-centred approach to disaster risk reduction, succeeding the 2005-2015 Hyogo Framework for Action

D. Inclusive Development Index

- ➤ The Inclusive Development Index (IDI) is an annual assessment of 103 countries' economic performance that measures how countries perform on eleven dimensions of economic progress in addition to GDP. It has 3 pillars; growth and development; inclusion and; intergenerational equity – sustainable stewardship of natural and financial resources.
- ➤ The IDI is a project of the World Economic Forum's System Initiative on the Future of Economic Progress, which aims to inform and enable sustained and inclusive economic progress through deepened public-private cooperation through thought leadership and analysis, strategic dialogue and concrete cooperation, including by accelerating social impact through corporate action.

Miscellaneous News

Awards

-National Bravery Awards

C The Prime Minister presented the National Bravery Awards to 18 children, who distinguish themselves by performing outstanding deeds of bravery and meritorious service.

Underlined Concepts

- The award is presented every year since 1957 by the Indian Council for Child Welfare (ICCW) to the children between the ages of six to eighteen.
- The award includes a medal, a certificate, and a cash prize. The Bharat Award winner gets a gold medal, while the rest get a silver medal. Each child is also given financial assistance to complete his or her schooling, as a part of ICCW's sponsorship program, under the Indira Gandhi scholarship scheme.
- The award consists of five categories:
 - The Bharat Award, since 1987
 - The Sanjay Chopra Award, since 1978
 - The Geeta Chopra Award, since 1978
 - The Bapu Gaidhani Award, since 1988
 - General National Bravery Awards, since 1957
- The awards are announced on November

14 (Children's Day) and the Prime Minister presents the awards on the eve of Republic Day. On 26th January, the awardees take part in the Republic Day Parade at Rajpath, New Delhi.

- The selection process:
 - ICCW receives applications every year from official agencies such as local and district governments, school authorities and Council for Child Welfare and are being sorted by a committee constituted by ICCW.
 - The committee consists of representatives from the Secretariats of the President and the Vice-President, various ministries, as well as the Central Social Welfare Board, police, All India Radio, Doordarshan and leading NGOs such as the National Bal Bhavan, SOS-Children's Villages of India, R K Mission and experienced ICCW members.

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2. Padma Awards 2018

G The President of India has approved conferment of 85 Padma Awards including two duo cases (in a duo case, the award is counted as one) as per list below.

The list comprises 3 Padma Vibhushan, 9 Padma Bhushan and 73 Padma Shri Awards.

14 of the awardees are women and the list also includes 16 persons from the category of Foreigners/NRI/PIO/OCI and 3 Posthumous awardees.

Padma Vibhushan

SR. NO.	Name	Field	State			
1.	Shri Illaiyaraja	Art-Music	Tamil Nadu			
2	Shri Ghulam Mustafa Khan	Art-Music	Maharashtra			
3.	Shri Parameswaran	Literature and Education	Kerala			

Padma Bhushan

SR. NO.	Name	Field	State	
4.	Shri Pankaj Advani	Sports- Billiards/ Snooker	Karnataka	
5.	Shri Philipose Mar Chrysostom	Others- Spiritualism	Kerala	
6.	Shri Mahendra Singh Dhoni	Sports-Cricket	Jharkhand	
7.	Shri Alexander Kadakin (Foreigner/ Posthumous)	Public Affairs	Russia	
8.	Shri Ramachandran Nagaswamy	Others- Archaeology	Tamil Nadu	
9.	Shri Ved Prakash Nanda (OCI)	Literature and Education	USA	
10.	Shri Laxman Pai	Art-Painting	Goa	
11.	Shri Arvind Parikh	Art-Music	Maharashtra	
12.	Ms. Sharda Sinha	Art-Music	Bihar	





Underlined Concepts

- ➤ The Padma Awards are conferred on the recommendations made by the Padma Awards Committee, which is constituted by the Prime Minister every year. The Padma Awards Committee is headed by the Cabinet Secretary and includes Home Secretary, Secretary to the President and four to six eminent persons as members. The recommendations of the committee are submitted to the Prime Minister and the President of India for approval.
- Padma Awards, which were instituted in the year 1954, are announced every year on the occasion of Republic Day (except for brief interruption(s) during the years 1978 and 1979 and 1993 to 1997).
- The award is given in three categories, namely, Padma Vibhushan, Padma Bhushan and Padma Shri.
 - Padma Vibhushan for exceptional and distinguished service;
 - Padma Bhushan for distinguished service of a high order; and
 - Padma Shri for distinguished service.
- All persons without distinction of race, occupation, position or sex are eligible for these awards. However, Government servants including those working with PSUs, except doctors and scientists, are not eligible for these awards.
- The award seeks to recognize works of distinction and is given for distinguished and exceptional achievements/service in all fields of activities/ disciplines. An illustrative list of the fields is as under:
 - Art (includes Music, Painting, Sculpture, Photography, Cinema, Theatre etc.)
 - Social work (includes Social Service, Charitable Service, Contribution in Community Projects etc.)

- Public Affairs (includes Law, Public Life, Politics etc.)
- Science & Engineering (includes Space Engineering, Nuclear Science, Information Technology, Research & Development in Science & its allied subjects etc.)
- Trade & Industry (includes Banking, Economic Activities, Management, Promotion of Tourism, Business etc.)
- Medicine (includes Medical Research, distinction/ specialization in Ayurveda, Homeopathy, Sidhha, Allopathy, Naturopathy etc.)
- Literature & Education (includes Journalism, Teaching, Book composing, Literature, Poetry, Promotion of education, Promotion of literacy, Education Reforms etc.)
- Civil Service (includes distinction/excellence in Administration etc. by Government Servants)
- Sports (includes popular Sports, Athletics, Adventure, Mountaineering, Promotion of Sports, Yoga etc.)
- Others (fields not covered above and may include propagation of Indian Culture, protection of Human Rights, Wild Life Protection/Conservation etc.)
- The award is normally not conferred posthumously. However, in highly deserving cases, the Government could consider giving an award posthumously.
- A higher category of Padma award can be conferred on a person only where a period of at least five years has elapsed since conferment of the earlier Padma award. However, in highly deserving cases, a relaxation can be made by the Awards Committee.

3. Prime Minister's Shram Awards

C The Government of India has announced the Prime Minister's Shram Awards for the year 2016 to be awarded to 50 workers employed in the Departmental undertakings and PSU's of the Central and State Governments and Private Sector units employing 500 or more workers.

GS SCORE



- Ministry of Labour and Employment announces Prime Minister's Shram Award every year.
- These awards are given to the workers in the Public Sector Undertakings, Departmental Undertakings of the Central and the State Governments and Private Sector units employing 500 or more workers in recognition of their distinguished performance, innovative ability, outstanding contribution in the field of productivity and exhibition of exceptional courage and presence of mind.
- > They are four types of awards:
 - Shram Ratna: Rs. 2 lakhs and recognition of their contribution to their field (a Sanad).
 - Shram Bhushan: RS. 1 lakh and a Sanad.
 - Shram Vir / Shram Veerangana: RS. 60,000 and a Sanad.
 - Shram Devi / Shram Shree: RS. 40,000 and a Sanad.

4. Annual Crystal Awards

C The King of Bollywood Shah Rukh Khan has won the 2018 Crystal Award from India. The superstar was honored with this award for his leadership in championing children's and women's rights in India. Shah Rukh has been running his NGO– Meer Foundation– which works for providing justice to female victims of acid attack.

The two others who received the award are Actor Cate Blanchett and musician Elton John. Blanchett, Australian actress and theatre director, has received the award for her leadership in raising awareness of the refugee crisis which John got it for his leadership in the fight against HIV/AIDS.

Art & Culture

> Purandara Dasa

- Purandara Dāsa (1484–1564) was a Haridasa (a devotee - servant of Lord Hari (Vishnu)), great devotee of Lord Krishna (an incarnation of Lord Vishnu) and a saint.
- He was a disciple of the celebrated Madhwa philosopher-saint Vyasatirtha, and a contemporary of yet another great Haridasa, Kanakadasa.
- He was a composer, singer and one of the

chief founding-proponents of the South Indian classical music (Carnatic Music).

- In honor of his significant and legendary contributions to Carnatic Music, he is widely referred to as the Pitamaha ("father" or the "grandfather") of Carnatic Music.
- He is respected as an avatara (incarnation) of the great sage Narada (a celestial being who is also a singer).
- Purandara Dasa is noted for composing Dasa





Sahithya, as a Bhakti movement vocalist, and a music scholar.

 There is much speculation about where Purandara Dasa, was born. Now, an expert committee constituted by Kannada University, Hampi, has come to the conclusion that it was most likely a small village called Kshemapura (now called Keshavapura) at Araga hobli in Tirthahalli taluk of Shivamogga district.

▶ Megalithic era Sarcophagus

- A rare sarcophagus (stone coffin), said to be 2,000-year old from the Iron Age–Megalithic era, was discovered from a rock-cut cave at Viyur village of Kollam, near Koyilandy, in Kozhikode.
- The coffin containing bone fragments was found during an excavation. Both these sarcophagi were recovered from Megalithic sites at Chevayur and Atholi, also in Kozhikode district.
- The entrance of the cave was on the eastern side. The square-shaped door has equal length of 50 centimetres on all sides. Different types of pottery, mostly four-legged jars and iron implements, were found in the cave.
- In prehistoric art, a megalith is a large, often undressed stone, that has been used in the construction of various types of Neolithic, Chalcolithic or Bronze Age monuments, during the period 4500-1000 BCE. Also known as petroforms, these monuments can consist of just one stone (Menhir), most megalithic monuments consist of a number of stones, which are fitted together without the use of mortar or cement. This form of rock art was used in ceremonial or ritualistic structures.

Durgiana Temple

- The Durgiana Temple is a premier temple situated in the city of Amritsar, Punjab. Though a Hindu temple, its architecture is similar to the Golden Temple. This temple derives its name from the Goddess Durga, the chief Goddess deified and worshipped here. Idols of Goddess Laksmi (goddess of wealth) and Vishnu (the protector of the world) are also deified here and worshipped.
- It is also referred to as the Silver Temple owing to the silver doors of its sanctum, on which are embossed the incarnations of Vishnu and other deities.

Mahamastakabhishek

- The Mastakabhisheka is held once in 12 years is one of the biggest festivals for the Jain community. It honors Lord Bahubali, a revered Jain icon.
- According to Jain texts, Bahubali attained liberation from the cycle of births and deaths (Moksha) at Mount Kailash and is revered as a liberated soul (Siddha) by the Jains.
- Bahubali is also called Gommateshwara because of the Gommateshwara statue dedicated to him and as lord "Kammateswara" from an inscription. The Gommateshwara statue was built by the Ganga dynasty minister and commander Chavundaraya; it is a 57-foot monolith situated above a hill in Shravanabelagola in the Hassan district of Karnataka state. It was built in around 981 A.D. and is one of the largest free-standing statues in the world.

> Sammakka- Saralamma Jatara

- Sammakka Saralamma Jatara or Medaram Jatara is a tribal Hindu festival of honouring the goddesses celebrated in the state of Telangana. This Jatara is known for witnessing one of the largest people gatherings in the world. The Jatara begins at Medaram in Tadvai mandal in Jayashankar Bhupalpally district.
- Medaram is a remote place in the Eturnagaram Wildlife Sanctuary, a part of Dandakaranya, the largest surviving forest belt in the Deccan.
- Jatara is celebrated during the time the goddesses of the tribals are believed to visit them. It is believed that after Kumbha Mela, the Medaram jatara attracts the largest number of devotees in the country.

Bharat Parv

- The 'Bharat Parv' event is being organized by the Government of India at the Red Fort, Delhi from 26th to 31st January, 2018 as part of the Republic Day 2018 celebrations. The prime objective of organizing the event is to generate a patriotic mood, promote the rich cultural diversity of the country and to ensure wider participation of the general public.
- The Ministry of Tourism has been designated as the nodal Ministry for the event.

Personalities in News

Sudeep Lakhtakia to head NSG

 RPF special DG Sudeep Lakhtakia has been appointed as the new chief of National Security Guard (NSG). Lakhtakia took over from S P Singh, who retired on January 31. The order was issued by the Appointment Committee of the Cabinet headed by Prime Minister Narendra Modi.

New Election Commissioners appointed

- President Ram Nath Kovind has appointed Election commissioner Om Prakash Rawat (64) as new Chief Election Commissioner. He will succeed Achal Kumar Joti who has retired from post.
- President has also appointed former finance secretary Ashok Lavasa as Election Commissioner. Both will have tenure of six years in office or till they attain the age of 65 years, whichever is earlier.
- ECI is permanent and independent constitutional body established directly by Constitution of India to ensure free and fair elections in the country. It is multi member body and currently has three members including Chief Election Commissioner (CEC).

• They all are appointed by the President. They hold office for term of six years or until they attain age of 65 years, whichever is earlier. The service conditions and tenure of office of Chief Election Commissioner and Election Commissioners are determined by an act of parliament titled The Chief Election Commissioner and Other Election Commissioners (Conditions of Service) Act, 1991.

Indian Origin boy sets new Mensa Record

- Indian-origin boy Mehul Garg (10) in United Kingdom became youngest applicant in decade to achieve highest score in Mensa IQ test, beating geniuses like Albert Einstein and Stephen Hawking. He scored maximum score of 162 to become a member of Mensa. His score is two points higher than Einstein and Hawking.
- Mensa is the largest and oldest high IQ society in the world. It is non-profit organization open to people who score at 98th percentile or higher on standardized, supervised IQ or other approved intelligence test.

Terms in News

Bogibeel Bridge

- Bogibeel bridge is a combined road and rail bridge in between Dhemaji district and Dibrugarh district of the north eastern Indian state of Assam over the Brahmaputra river.
- It is India's longest rail-cum-road bridge.

Nirman Samvaad

- 'Nirman Samvaad', a mega conclave of Ministry of Railways with leaders of construction industry concludes in New Delhi.
- The conclave was held as a step to streamline procedures and remove bottlenecks to ensure

the fast track implementation of projects on the railways.

White Oil

- Saudi Arabia will soon begin issuing tourist visas, opening up one of the last frontiers of global tourism — a sector touted as the desert kingdom's 'white oil' — as it steps up diversification efforts to wean itself off its crude oil dependence.
- The kingdom is seeking a place on the global tourism map by promoting sites such as the Al Wahbah crater, widely unheard of even within Saudi Arabia.





Kawaii Mascots : Rugby World Cup 2019

- Ren-G, the official mascot of Rugby World Cup 2019, has been unveiled by the Japan Rugby 2019 organising committee at a special event in Tokyo.
- The mascot, which is based on traditional storytelling characters grounded in ancient Japanese culture, is said to embody rugby's values with the purpose of spreading the spirit of the game and happiness throughout Japan and around the world.

National Disaster Response Force

- The National Disaster Response Force (NDRF) has celebrated its 13th Raising Day on January 19, 2018 in New Delhi.
- The NDRF raised on January 19, 2006, is a specialised force capable of responding to any type of disaster in the country and abroad.
- It is strategically deployed across the nation as per the vulnerability profile of the country.

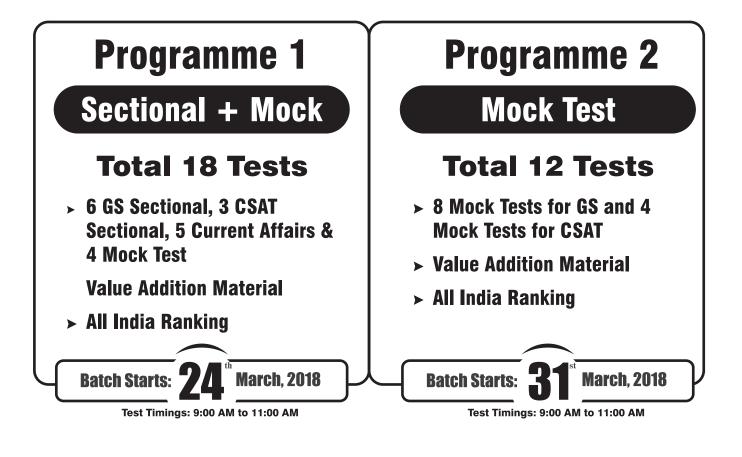




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