GS SCORE

IAS 2018

Prelims Special
Current Affairs

Volume-1

GS SCORE

Target PT 2018

Complete Revision through MCQs

- **Concepts Classes**
- **Topic-wise Practice Tests with Detailed Discussion**
- **Prelims Current Affairs**
- **Prelims Study Material**

50 Days Programme (Classroom & Online)

Programme Highlights

- ⊙ It covers complete General Studies Syllabus (History, Geography, Polity, Economy, Science & Environment)
- ⊙ **50 Classes (4-5 hrs.) on Micro Detailing** of Subjects + covering about 2500+ MCQs
- ⊙ Each class will consist of Class test on the particular topic (mentioned in the schedule) followed by detailed discussion including current affairs related to that topic. *(Total 45 tests - Tests may vary from 30-50 questions on particular topic)*
- ⊙ Detailed Explanation of each question and related aspects will be provided
- ⊙ Complete Prelims study material and Prelims current affairs will also be provided. *(It will cover current affairs of past two years till December, 2017; current affairs will be provided till April, 2018 under the programme part-wise in respective accounts of the students)*
- ⊙ Classes on **India Year Book, Budget and Economic Survey** alongwith tests will be covered under the programme

Programme Fee: ₹ 17,000/- + GST

Batch Starts: 25th February, 2018

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

Polity and Governance

1
Electoral Bonds Notified

> *The Government of India has notified the Scheme of Electoral Bonds to cleanse the system of political funding in the country.*
>
> ***The broad Features of the Scheme are given below:***
>
> *Electoral Bond would be a bearer instrument in the nature of a Promissory Note and an interest free banking instrument.*
>
> *A citizen of India or a body incorporated in India will be eligible to purchase the bond.*
>
> *Electoral Bond(s) would be issued/purchased for any value, in multiples of **Rs.1,000, Rs.10,000, Rs.1,00,000, Rs.10,00,000 and Rs.1,00,00,000** from the Specified Branches of the State Bank of India (SBI).*
>
> *The purchaser would be allowed to buy Electoral Bond(s) only on due fulfillment of all the extant KYC norms and by making payment from a bank account. It will not carry the name of payee.*
>
> *Electoral Bonds would have a life of only 15 days during which it can be used for making donation only to the political parties registered under section 29A of the Representation of the Peoples Act, 1951 (43 of 1951) and which secured not less than one per cent of the votes polled in the last general election to the House of the People or a Legislative Assembly.*
>
> *The Electoral Bond(s) shall be encashed by an eligible political party only through a designated bank account with the authorised bank.*

Underlined Concepts and terminologies

▶ ## Bearer instruments

⊙ A bearer instrument, or bearer bond, is a type of fixed-income security where no ownership information is recorded and the security is issued in physical form to the purchaser. The holder is presumed to be the owner, and whoever is in possession of the physical bond is entitled to the coupon payments.

▶ ## Promissory Note

⊙ A **promissory note** is a financial instrument that contains a written promise by one party (the note's issuer or maker) to pay another party (the **note's** payee) a definite sum of money, either on demand or at a specified future date.

▶ ## KYC norm

⊙ Know Your Customer, commonly known as KYC, enables a bank or a financial institution in authenticating the identity of its customers. This helps in prohibiting money-laundering activities and further ensures that the deposits/ investments are made in the name of a real person and not fictitious one.

▶ ## Representation of Peoples Act 1950

⊙ **It provides:**

a. The allocation of seats in, and the delimitation of constituencies for the purpose of election to the House of the People and the Legislatures of States;

a. The qualification of voters at such elections;

a. The methodology of preparation of electoral rolls;

a. The manner of filling seats in the Council of States; and

a. Matters connected therewith.

▶ ## Representation of Peoples Act 1951

⊙ **It provides:**

◆ Methodology for the conduct of elections of the Houses of Parliament and to the House or Houses of the Legislature of each State;

◆ The qualifications and disqualifications for membership of those Houses;

◆ The corrupt practices and other offences at or in connection with such elections; and

◆ The decision on doubts and disputes arising out of or in connection with elections.

▶ ## Why needed?

⊙ The conventional system of political funding is to rely on donations. These donations, big or small, come from a range of sources from political workers, sympathisers, small business people and even large industrialists. The conventional practice of funding the political system was to take donations in cash and undertake these expenditures in cash. The sources are anonymous or pseudonymous. The quantum of money was never disclosed. The present system ensures unclean money coming from unidentifiable sources. It is a wholly non-transparent system. Most political groups seem fairly satisfied with the present arrangement and would not mind this status-quo to continue. The effort, therefore, is to run down any alternative system which is devised to cleanse up the political funding mechanism.

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2.
Women to be Inducted into Territorial Army

> *Clearing the path for induction of women in the Territorial Army, the Delhi High Court observed that any provision that bars them from joining the Force was against the Fundamental Rights provided under the Constitution.*
>
> *The Court noted that more and more countries have moved away from positions of total prohibition to permitting recruitment of women even in combat roles in the* **armed forces**. *It listed around 22 countries, including the U.S., U.K., Canada and Australia, which permit recruitment of women even in combat roles.*
>
> ### *Eligibility rules*
>
> *Section 6 of the Territorial Army Act lays down rules on who is eligible for enrolment in the Territorial Army, which is also known as the second line of defence after the regular Army. The High Court said, the words* **"any person"** *in Section 6 shall include both men and women.*

Underlined Concepts

Timeline of role of women in the Indian army

The role of women in the Indian army began when the "Indian Military Nursing Service" was formed in 1888, and nurses fought in World War I and II where 350 Indian Army nurses either died or were taken prisoner of war or declared missing in action, this includes nurses who died when SS Kuala was sunk by the Japanese Bombers in 1942.

 In 1992, the Indian Army began inducting women officers in non-medical roles. On 19 January 2007, the United Nations first all female peacekeeping force made up of 105 Indian policewomen was deployed to Liberia.

In 2014, India's army had 3 per cent women, the Navy 2.8 per cent and the Air Force performed best with 8.5 per cent women. In 2015 India opened new combat air force roles for women as fighter pilots, adding to their role as helicopter pilots in the Indian Air Force.

Women in Combat Role

In a transformational move, the Indian Army is all set to open up combat positions for women, a gender barrier broken by only a few countries globally. Army Chief Gen Bipin Rawat said the process to allow women in combat role, currently an exclusive domain of men, is moving fast and initially women will be recruited for positions in military police.

Creating history, the Indian Air Force, last year, had inducted three women as fighter pilots, less than a year after the government decided to open the fighter stream for women on an experimental basis. A decision on having women as fighter pilots will be taken after evaluating performance of the three women — Avani Chaturvedi, Bhawana Kanth and Mohana Singh who are now part of IAF's fighter squadron.

The Indian Navy is currently deliberating on a policy on having women onboard the ships. The Navy allows women in various other segments including

in legal, logistics, naval architecture and engineering departments.

Very few countries including Germany, Australia, Canada, the US, Britain, Denmark, Finland, France, Norway, Sweden and Israel have allowed women in combat roles.

Territorial Army

The English raised the Territorial Army in 1920 through Indian Territorial Act of 1920 and it was comprised of two wings namely – 'The Auxiliary Force' for Europeans & Anglo-Indians, and 'The Indian Territorial Force' for Indian Volunteers. After Independence the Territorial Army Act was passed in 1948 and the first Indian Governor General Shri C Rajagopalachari formally inaugurated the Territorial Army.

The Territorial Army is a part of Regular Army and its present role is to relieve the Regular Army from static duties and assist civil administration in dealing with natural calamities and maintenance of essential services in situations where life of the communities is affected or the security of the Country is threatened and to provide units for Regular Army as and when required.

What is Territorial Army?

• The Territorial Army (TA) is a voluntary force of civilians donning the uniform for a few months every year without joining the regular Army
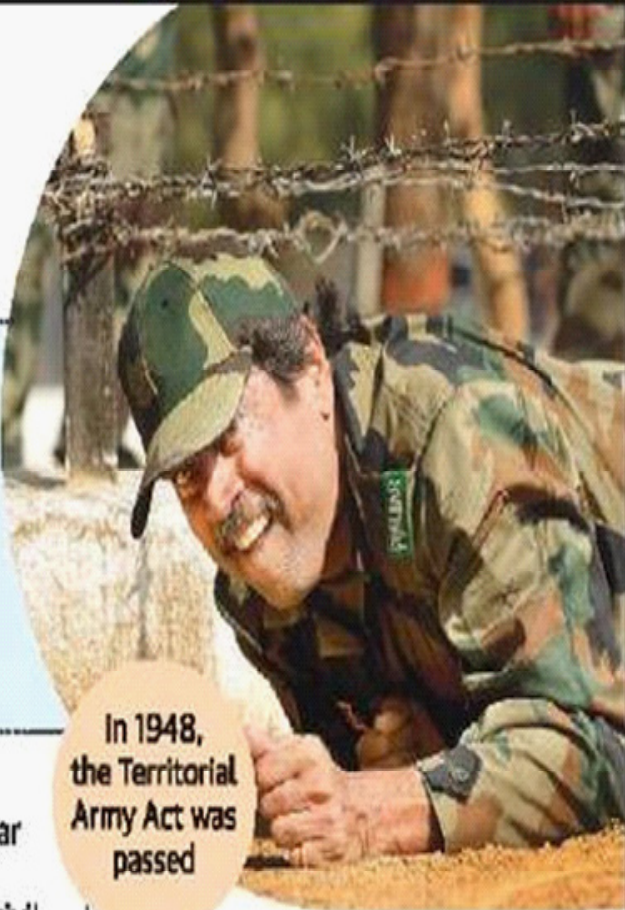
• Those interested can join the TA from the age of 18- 42 years

• One of the eligibility criteria is that an individual must be well-settled and employed

• The maximum rank reached is that of a Brigadier

• The TA also has departmental units such as Railways, IOC, ONGC, etc

• The TA was raised by the British in 1920 with two wings — one for Europeans and Anglo-Indians, the other for Indian volunteers

• Of late, the TA has become a way of lateral entry with officers being taken for full-time employment

• It is a part of the regular Army and assists it in civil administration, maintenance of essential services and so on

In 1948, the Territorial Army Act was passed

• It has many public personalities like MP Anurag Thakur, actor Mohanlal, cricketers Kapil Dev, M.S. Dhoni and Sachin Tendulkar holding honorary ranks

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3.
Non Utilization of the Family Planning Fund

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Family planning programme is the first national programme launched in 1952 for reducing birth rate to stabilize the population at a level consistent with the requirement of national economy. Family planning provides a choice & freedom to Women for deciding their Family size

Only 60.7% of the funds allocated to the family planning programme have been used across states during the current financial year which would end in March.

The lowest utilization of funds was recorded by Uttar Pradesh (38%), followed by Bihar (48%), and Chhattishgarh (49%) in the high focus category of states for family planning.

Underlined Concepts and Terminologies

Family Planning has been a key priority area of the Government and it has been vigorously pursued through the National Rural Health Mission launched in the year 2005 in line with the policy framework for population stabilization as envisaged in the National Population Policy, 2000. The main objectives of National Population Policy, 2000 was to address the unmet needs for contraception and achieving a stable population by 2045, at a level consistent with the requirements of sustainable economic growth, social development and environmental protection. As a result of the initiatives of the Government, the country's Total Fertility Rate (TFR) has declined from 2.7 in 2006 to 2.2 in 2016 (NFHS- IV). The decadal growth rate has declined from 21.54 % in 1990-2000 to 17.64 % during 2001-11. The Crude Birth Rate has declined from 23.8 in 2005 to 20.8 (SRS 2015) and 24 states/UTs have already achieved the replacement level TFR of 2.1 or less out of 36 states/UTs.

➤ **Steps Taken to Check the Increase in Population are:**

◉ **Mission Parivar Vikas** has been launched to increase access to contraceptives and Family Planning services in 146 high fertility districts. In addition, Mission Parivar Vikas, a central family planning initiative has also been launched by the Ministry. The key strategic focus of this initiative is on improving access to contraceptives through delivering assured services, ensuring commodity security and accelerating access to high quality family planning services.

◉ **Introduction of New Contraceptive Choices:** The current basket of choice has been expanded to include the new contraceptives viz. Injectable contraceptive, Centchroman and Progesterone Only Pills (POP).

◉ **Family Planning logistics management information system** has been developed to track Family Planning commodities.

◉ **Enhanced Compensation Scheme for Sterilization:** The sterilization compensation scheme has been enhanced in 11 high focus states (8 Empowered Action Group (EAG), and Assam, Gujarat, Haryana).

◉ **Post Abortion Family Planning Services** have been initiated.

- **A Scheme to ensure spacing of births by ASHAs** is in operation.

- **Prerna Strategy:-** Jansankhya Sthirata Kosh (JSK) has launched this strategy for helping to push up the age of marriage of girls and delay in first child and spacing in second child the birth of children in the interest of health of young mothers and infants. The couple who adopt this strategy awarded suitably. This helps to change the mindsets of the community.

- **Santushti Strategy:-** Under this strategy, Jansankhya Sthirata Kosh, invites private sector gynaecologists and vasectomy surgeons to conduct sterilization operations in Public Private Partnership mode. The private hospitals/nursing home who achieved target to 10 or more are suitably awarded as per strategy.

As a result the Total Fertility Rate (TFR) has declined to 2.2 (NFHS IV) and the Decadal growth rate has declined to 17.64 % as per Census 2011.

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Snippets

Snippets related to ART AND CULTURE

A. DP singh UGC Chairman

◉ The Government decided to elevate the Director of National Assessment and Accreditation Council (NAAC), DP Singh, as the new Chairman of the University Grants Commission (UGC). The Commission is mandated to realise the twin objectives of allocating funds for university development as well as to promote quality of teaching and research.

◉ Dhirendra Pal Singh, better known as D.P. Singh, is an Indian naturalist and academic administrator. He has served as vice-chancellor of three different universities, namely Dr. Hari Singh Gour University, Banaras Hindu University and Devi Ahilya Vishwavidyalaya.

◉ **UGC**

◆ The University Grants Commission (UGC) of India is a statutory body set up in 1956, and is charged with coordination, determination and maintenance of standards of higher education.

◆ Previously, UGC was formed in 1946 to oversee the work of the three Central Universities of Aligarh, Banaras and Delhi. In 1947, a Committee was entrusted with the responsibility of dealing with all the then existing Universities.

◆ After independence, the University Education Commission was set up in 1948 under the Chairmanship of S. Radhakrishnan and it recommended that the UGC be reconstituted on the general model of the University Grants Commission of the United Kingdom.

◆ The UGC was however, formally established in November 1956, by an Act of Parliament as a statutory body of the Government of India.

Important functions performed by the Commission:

◉ It provides recognition to universities in India.

◉ It oversees distribution of grants to universities and colleges in India.

◉ It provides scholarships/fellowships to beneficiaries.

◉ It monitors conformity to its regulations by universities and colleges.

B. Online Portal NARI

◉ In a path breaking initiative to empower women, the Minister of Women & Child Development, Smt. Maneka Sanjay Gandhi inaugurated an online portal NARI in New Delhi.

◉ Developed by the Ministry of Women & Child Development, the portal will provide women citizens with easy access to information on government schemes and initiatives for women.

◉ In order to make this information more easily accessible in one place, the NARI portal summarizes over 350 government schemes and other important information for the benefit of women, with more being added everyday. It provides links to the Ministries, Departments and autonomous bodies offering these schemes as well as easy access to online applications and grievance redressal.

◉ NARI will provide information to women on issues affecting their lives. There are tips on good nutrition, suggestions for health check ups, information on major diseases, tips for job search and interview, investment and savings advice, information on crimes and against women and reporting procedures, contacts of legal aid cells, simplified adoption procedures and much more. It will endow women with the power of information to build their life skills and facilitates them in taking full advantage of the services provided by the Government for them.

◉ Empowerment and welfare of women and children is top priority of the government, NARI and e-Samvad portals are initiatives in this direction.

C. e- Samvad portal

◉ E-Samvad is a portal started by the Ministry of Women and Child Development to provide a platform to interact with NGOs, civil society and concerned citizens.

◉ This is a way for the Ministry to receive input on its schemes and programmes. Individuals

and organisations can register themselves here to share their feedback, suggestions, best practices, grievances etc. with the Ministry.

◎ MWCD will be able to view the inputs/ suggestions received for their concerned subject areas and appropriately respond to NGOs.

◎ This will help in formulation of effective policies and measures for welfare of women and children.

D. AIIMS in Bilaspur (Himachal Pradesh)

◎ Union Cabinet has approved setting up of an AIIMS in Bilaspur in Himachal Pradesh with an outlay of Rs. 1,350 crore under the Pradhan Mantri Swasthya Surakhsa Yojna (PMSSY).

◎ There will also be an AYUSH department with 30 beds for treatment in traditional system of medicine.

E. Pradhan Mantri Swasthya Surakhsa Yojna

◎ The Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) was announced in 2003 with objectives of correcting regional imbalances in the availability of affordable/ reliable tertiary healthcare services and also to augment facilities for quality medical education in the country.

◎ PMSSY has two components:

  ◆ Setting up of AIIMS like Institutions.

  ◆ Upgradation of Government Medical College Institutions.

◎ Six AIIMS-like institutions, one each in the States of Bihar (Patna), Chhattisgarh (Raipur), Madhya Pradesh (Bhopal), Orissa (Bhubaneswar), Rajasthan (Jodhpur) and Uttaranchal (Rishikesh) have been setup under the PMSSY scheme.

F. Khelo India School Games (KISG)

Khelo India School Games 2018 will be held from January 31 for under-17 age group (boys and girls) across 16 sports disciplines. The games will be conducted at par with international level competitions so as to give the best experience to players and other stakeholders.

In a move to identify and groom young sporting talent, the Union cabinet has approved a revamped Khelo India (Play India) scheme.

Some of the salient features of the Programme include:

◎ An unprecedented Pan Indian Sports Scholarship scheme, which would cover 1,000 most talented young athletes each year across select sports disciplines.

◎ Each athlete selected under the scheme shall receive an annual scholarship worth Rs.5. lakh for 8 consecutive years.

◎ This is the first time ever that a long-term athlete development pathway would be made available to gifted and talented youngsters to excel in competitive sports and will create a pool of highly competitive athletes who can compete to win at the world stage.

◎ The Programme aims to promote 20 universities across the country as hubs of sporting excellence, which would enable talented sports persons to pursue the dual pathway of education and competitive sports.

◎ The Programme also aims at creating an active population with healthy life-style.

◎ The Programme would cover about 200 million children in the age group of 10-18 under a massive national physical fitness drive, which will not only measure the physical fitness of all children in the age group, but also support their fitness related activities.

Impact:

◎ The power of sport in promoting gender equity and social inclusiveness is also fully recognized and special measures are provided for to achieve these objectives.

◎ The programme also aims at engaging youth living in disturbed and deprived areas, in sporting activities, to wean them away from unproductive and disruptive activities and mainstream them in the nation-building process.

◎ The programme strives to raise the standards of competition, both at school and college level, to have maximum access to organized sports competitions.

◎ It also includes the use of latest user-friendly technology in all aspects of sports promotion such as, use of mobile apps for dissemination of sports training; National Sports Talent Search portal for talent identification; interactive website for indigenous sports; GIS based information system for locating and using sports infrastructure, etc.

◉ This programme strives to promote "Sports for All" as well as "Sports for Excellence."

G. Allied and Healthcare Professionals' Database Portal

The Union Health ministry has launched a web portal which will act as a robust data repository of allied and healthcare workers, help in bringing transparency and track the number of such professionals.

According to the World Health Organization (WHO), "Allied health personnel are personnel who have specific connections with the art and science of health care and are recognized as members of health team in the national health system. They are educated, with different levels of professional qualifications, in a recognized or accredited health or health related or academic Institution".

Allied & healthcare professionals include individuals involved with the delivery of health or related services, with expertise in therapeutic, diagnostic, curative, preventive and rehabilitative interventions. They work in interdisciplinary health teams including physicians, nurses and public health officials to promote, protect, treat and/or manage a person's physical, mental, social, emotional and environmental health and holistic well-being.

Benefits of the portal

◉ This is a provisional measure taken by the Government of India to reach out to all the allied and healthcare professionals in the country so that they may be effectively tracked as part of the overall HRH data available with the Government of India. This will help the government to estimate the numbers and streams of allied and healthcare existing in the country.

◉ It will help the Government to track the number of professionals and streams of allied and healthcare professions in the country.

◉ It may further prove helpful in expediting the envisaged processes viz. licensing of professionals, workforce policy planning, and bringing transparency in the system by maintaining standards of educational and clinical practice etc.

H. Go Green Initiative in Parliament and State Assemblies

◉ The Central Government is proposing a shift to paperless, digitized working in Parliament and State legislatures to bring its "Go Green Initiative".

◉ Going paperless and achieving more automation in State legislatures and Parliament is part of the current government's Digital India plans.

◉ Over the past few years, the Union government has cut down on printing of hard copies of parliamentary documents and reports.

◉ In 2016, the government more than halved the number of printed Budget copies from the previous figure of 5,100.

◉ In 2017, on Budget day, only Members of Parliament got hard copies as the Finance Ministry put the Budget speech and proposals on its websites within minutes of Finance Minister concluded it.

◉ Apart from saving on costs and paper, going paperless in Parliament and State Legislatures is "responsive, transparent, productive and more accountable to the public."

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Economy

1
Jal Marg Vikas Project

One of the major problems for a commercially viable and safe navigation on NW-1 is low depth upstream of Farakka due to low discharges from tributaries and difficult hydro morphological characteristics of River Ganga.

Thus Cabinet Committee on Economic Affairs, chaired by the Prime Minister Shri Narendra Modi has given its approval for implementation of the Jal Marg Vikas Project (JMVP) for capacity augmentation of navigation on National Waterway-1 (NW-1) at a cost of Rs 5369.18 crore with the technical assistance and investment support of the World Bank to enable commercial navigation of at least 1500 tonnes vessels in Ganga. The Project is expected to be completed by March, 2023.

States/Districts Covered

■ *States: Uttar Pradesh, Bihar, Jharkhand, West Bengal.*

■ *Major Districts: Varanasi, Ghazipur, Ballia, Buxar, Chhapra, Vaishali, Patna, Begusarai, Khagaria, Munger, Bhagalpur, Sahibganj, Musrhidabad, Pakur, Hoogly, Kolkata.*

Benefits of the Project

■ *It will help in development of an alternative mode of transport that will be environment friendly and cost effective. The project will contribute in bringing down the logistics cost in the country.*

■ *It will lead to mammoth Infrastructure development like multi-modal and inter-modal terminals, Roll on - Roll off (Ro-Ro) facilities, ferry services, navigation aid.*

> ■ *It will provide Socio-economic impetus; huge employment generation.NW-1 development & operations will lead to direct employment generation to the tune of 46,000 and indirect employment of 84,000 will be generated by vessel construction industry.* **"**

Underlined Concepts and Terms

▶ About Jal Marg Vikas project

- ◉ Jal Marg Vikas project (JMVP) is a National Waterways development project announced during the budget 2015-16 by the Government of India. It is a non- water consumptive transport project formulated with the aim of reducing rail & road congestion, reducing the carbon footprint and minimal resource depletion. Inland Waterways Authority of India (IWAI) – the apex statutory body created in 1986 for the development and regulation of inland waterways has been designated as the Project Implementing Agency by the ministry of shipping.

- ◉ The Jal Marg Vikas Project (JMVP) on NW-1 is being implemented with the financial and technical support of the World Bank. The Project entails development of fairway with 3 meters depth between Varanasi and Haldia (Phase-I) covering a distance of 1380 km at an estimated cost of Rs. 5369 crore with target for completion in six years.

- ◉ The development of National Waterway (NW)-1 would facilitate bulk transport of cargo and thereby result in the economic development of the region. The NW-1 passes through West Bengal, Jharkhand, Uttar Pradesh and Bihar, serving major cities like Allahabad, Varanasi, Patna, Howrah, Calcutta, Haldia etc. Logistics hubs with rail connectivity at important nodal points along the National Waterway will be created by IWAI with the help of Dedicated Freight Corridor Corporation of India Limited (DFCCIL). This project also involves development of fairway, strengthening of river navigation system, conservancy works and modern river information system, Digital Global Positioning System, night navigation facilities, creation of a new state of art navigational Lock at Farraka and Multimodal terminals at Sahibganj, Haldia and Varanasi.

Haldia (Sagar Island) - Allahabad-1620 km

Declared waterways
— NW-1
— NW-5
● Important places

► About River Ganga

- ◉ The point of origin of Ganga is Gangotri Glacier in Himalayas' southern slope and it runs through India and Bangladesh, covering a total distance of 1560 miles or 2520 kilometers.

- ◉ The Ganges River flows through several states including Uttarakhand, Uttar Pradesh, Bihar, Jharkhand, and West Bengal.

- ◉ The Ganges River's main tributaries include Ramganga, Gomti, Ghaghara, Gandaki, BurhiGandak, Koshi, Mahananda, Yamuna, Tamsa, Son, and Punpun.
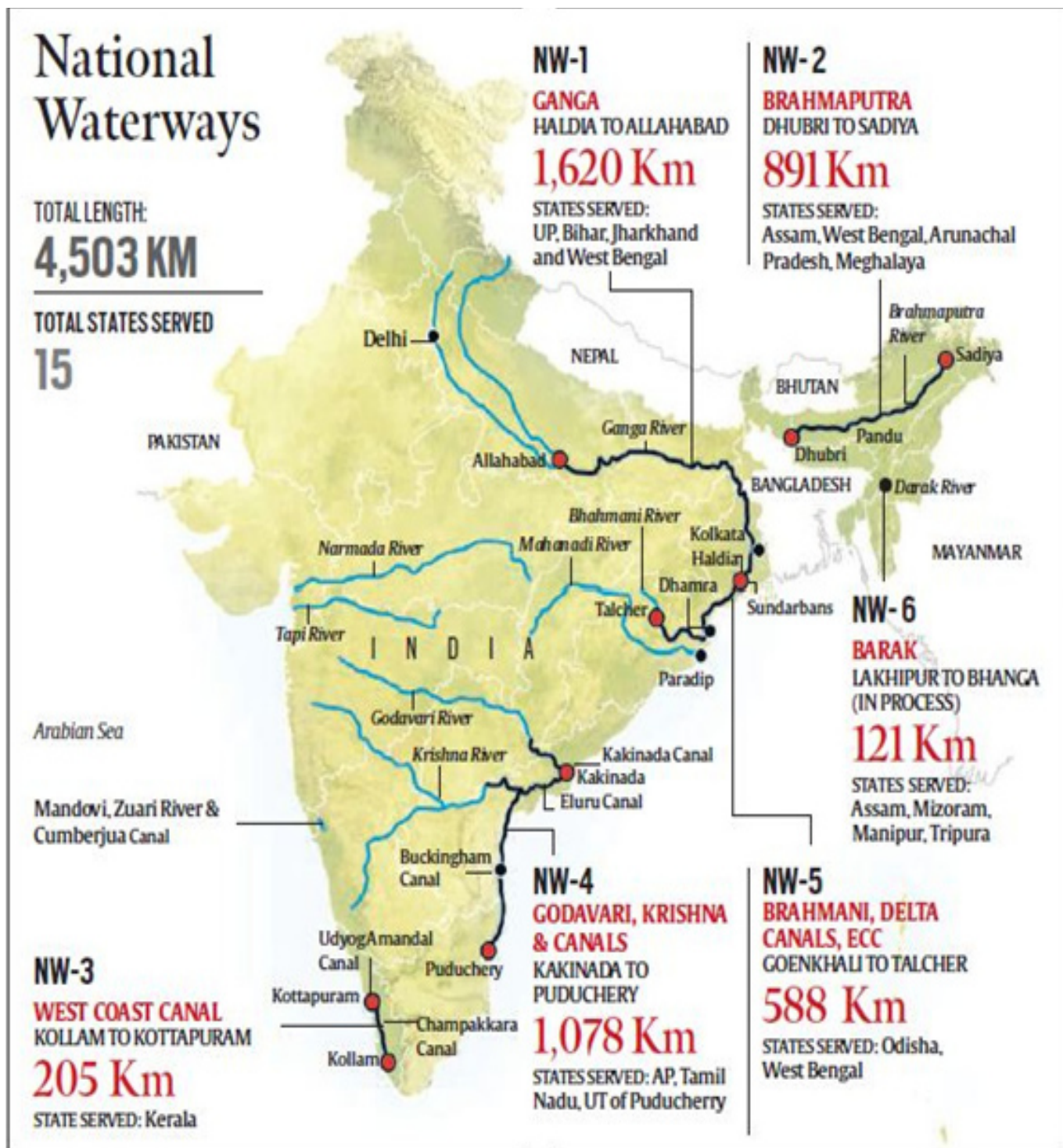
- ◉ The Ganges River passes through many cities including Rishikesh, Hardiwar, Farrukhabad, Kanpur, Jajmau, Allahabad, Mirzapur, Varanasi, Ghazipur, Buxar, Ballia, Patna, Munger, and Bhagalpur.

- ◉ The Ganges River watershed (area of land drained by the river) is 416,990 square miles in size.

► National Waterways of India

- ◉ As per constitutional provisions, only those waterways which are declared as National Waterways come under the purview of Central Government while rest of waterways remain in the purview of respective State Government. Since formation of IWAI, five waterways namely:

  - ◆ Ganga

  - ◆ Brahmaputra

  - ◆ West Coast Canal with Udyogmandal and Champakara Canals

  - ◆ Kakinada-Puducherry Canals system along with Godavari and Krishna rivers

- ◆ East Coast Canal with Brahmaniriver and Mahanadi delta have been declared as National Waterways.

- ◆ One more waterway namely Barak river is under consideration of the Central Government for declaration as a National Waterways.

- ◉ IWAI undertakes infrastructure development and maintenance works on National Waterways. It also takes up techno-economic feasibility studies and prepares proposals for declaration of other waterways as National Waterways. It also advises Central Government on matters related to IWT and assists States in development of IWT sector.

National Waterways

TOTAL LENGTH:
4,503 KM

TOTAL STATES SERVED
15

NW-1
GANGA
HALDIA TO ALLAHABAD
1,620 Km
STATES SERVED:
UP, Bihar, Jharkhand
and West Bengal

NW-2
BRAHMAPUTRA
DHUBRI TO SADIYA
891 Km
STATES SERVED:
Assam, West Bengal, Arunachal
Pradesh, Meghalaya

NW-6
BARAK
LAKHIPUR TO BHANGA
(IN PROCESS)
121 Km
STATES SERVED:
Assam, Mizoram,
Manipur, Tripura

NW-4
GODAVARI, KRISHNA
& CANALS
KAKINADA TO
PUDUCHERY
1,078 Km
STATES SERVED: AP, Tamil
Nadu, UT of Puducherry

NW-5
BRAHMANI, DELTA
CANALS, ECC
GOENKHALI TO TALCHER
588 Km
STATES SERVED: Odisha,
West Bengal

NW-3
WEST COAST CANAL
KOLLAM TO KOTTAPURAM
205 Km
STATE SERVED: Kerala

Map labels: Delhi, NEPAL, PAKISTAN, Ganga River, Allahabad, BHUTAN, Brahmaputra River, Sadiya, Pandu, Dhubri, BANGLADESH, Darak River, MAYANMAR, Bhahmani River, Mahanadi River, Kolkata, Haldia, Dhamra, Talcher, Sundarbans, Paradip, Narmada River, Tapi River, INDIA, Godavari River, Krishna River, Kakinada Canal, Kakinada, Eluru Canal, Arabian Sea, Mandovi, Zuari River & Cumberjua Canal, Buckingham Canal, UdyogAmandal Canal, Puduchery, Kottapuram, Champakkara Canal, Kollam

▶ Benefits of Inland Waterways:

- ◉ **Low capital cost-** Cost of development of inland waterway has been estimated to be a mere 5-10 per cent of the cost of developing of an equivalent 4-lane highway or railway.

- ◉ **Low maintenance cost-** Cost of maintenance of inland waterway is placed at 20 per cent of that of roads.

- ◉ **Low fuel cost-** Inland Water Transport is a highly fuel-efficient mode of transport. This fact is borne out by the estimate that one litre of fuel can move 24 tonnes/km of freight by road, 85 by rail and 105 by IWT.

- ◉ **Cost-effective transport mode-** It has also been estimated that diversion of one billion tonne-km of cargo to the IWT mode will reduce transport fuel costs by 5 million USD and the overall transport costs by 9 million USD.

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2.
Revised PPP Port Concessions

The government has approved a revised model concession pact for projects based on public private partnership (PPP) design at major ports to make the investment climate more investor friendly.

The revised Model Concession Agreement (MCA) includes providing an exit route to developers by way of divesting their equity up to 100% after completion of two years from the Commercial Operation Date (COD), similar to the MCA provisions of the highways sector.

The amendments in the MCA envisage constitution of the Society for Affordable Redressal of Disputes - Ports (SAROD- PORTS) as a disputes resolution mechanism similar to the provision available in the highways sector.

"Concessionaire would pay royalty on "per MT of cargo/TEU handled" basis, which would be indexed to the variations in the WPI annually". This would replace the present procedure of charging royalty which is equal to the percentage of gross revenue, quoted during bidding, calculated on the basis of upfront normative tariff ceiling prescribed by Tariff Authority for Major Ports (TAMP).

Underlined Concepts and Terms

▶ **What are 'Public-Private Partnerships '?**

- Public-private partnerships between a government agency and private-sector company can be used to finance, build and operate projects, such as public transportation networks, parks and convention centers. Financing a project through a public-private partnership can allow a project to be completed sooner or make it a possibility in the first place.

▶ **PPP advantages:**

- Ensure the necessary investments into public sector and more effective public resources management;

- Ensure higher quality and timely provision of public services;

- Mostly investment projects are implemented in due terms and do not impose unforeseen public sectors extra expenditures;

- A private entity is granted the opportunity to obtain a long-term remuneration;

- Private sector expertise and experience are utilized in PPP projects implementation;

- Appropriate PPP project risks allocation enables to reduce the risk management expenditures; and

- In many cases assets designed under PPP agreements could be classified off the public sector balance sheet.

Benefits of PPP

- Bridges large funding gaps in infra development
- Enhances efficiency of project implementation
- Leads to cost savings of 17-25% over a period
- Helps local firms gain scale, and take up projects abroad
- Forces govt to evolve institutional, legal frameworks
- Pressures govt to develop and reform financial markets
- Creates execution urgency otherwise goes unnoticed
- Ensures effective and efficient delivery by private party
- Helps different capabilities in market to come together
- Enables govt to take up larger, more challenging projects
- Finds competitive bidders for maximum number of projects

➤ **PPP disadvantages:**

- ⊙ Infrastructure or services delivered could be more expensive;

- ⊙ PPP project public sector payments obligations postponed for the later periods can negatively reflect future public sector fiscal indicators;

- ⊙ PPP service procurement procedure is longer and more costly in comparison with traditional public procurement; and

- ⊙ PPP project agreements are long-term, complicated and comparatively inflexible because of impossibility to envisage and evaluate all particular events that could influence the future activity.

➤ **Additional Information about ports:**

- ⊙ India has **12 major ports,** 200 notified minor and intermediate ports. Maharashtra (48) has the maximum number of non-major ports followed by Gujarat (42) and Andaman & Nicobar Islands (23).

- ⊙ The Major Ports are administered by the central government's shipping ministry .On the other hand, Minor and Intermediate ports are administered by the relevant departments or ministries in the nine coastal states.

- ⊙ The Coastal States in India are Andhra Pradesh, Odisha, West Bengal, Tamil Nadu, Kerala, Karnataka, Goa, Maharashtra and Gujarat.

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3.
TRAI Interconnect Rule

" The Telecom Regulatory Authority of India (TRAI) has issued new interconnectivity regulations mandating service providers to enter into an interconnection agreement "on non-discriminatory basis" within 30 days of receiving a request from another operator.

The 'Telecom Interconnection Regulations 2018', which will come into effect from February 1, 2018, also provide for a daily penalty of up to Rs.1 lakh per service area for operators violating the new norms.

The new regulations cover important aspects of interconnection such as interconnection agreement, provisioning of initial interconnection and augmentation of points of interconnections, disconnection of ports, and financial disincentive on interconnection issues. The regulations will apply to all the service providers offering telecom services in India. "

Underlined Concepts and Terms

► **Meaning of Interconnection**

  ◉ "Interconnection means the physical and logical linking of public electronic communications networks used by the same or a different undertaking in order to allow the users of one undertaking to communicate with the users of the same or another undertaking, or to access services provided by another undertaking."

► **Interconnection is needed because:**

  ◉ No single operator can own or lease all the network required to switch calls to and from all possible locations

  ◉ No operator has ever owned or leased all the network components for international calls

  ◉ The requirement for any to any connectivity is paramount in the market

  ◉ Legislation and policy has facilitated network competition

► **Advantages and disadvantages**

  ◉ *Gain to incumbents:*

  ◆ Expansion of network

  ◆ Increasing total traffic

  ◆ Development of new technologies

  ◉ *Loss to incumbents:*

  ◆ Loss of market share to new entrants

  ◆ Decreased power to influence policies and laws

► **About TRAI**

  ◉ The Telecom Regulatory Authority of India (TRAI) was, thus, established with effect from 20th February 1997 by an Act of Parliament, called the Telecom Regulatory Authority of India Act, 1997, to regulate telecom services, including fixation/revision of tariffs for telecom services which were earlier vested in the Central Government.

  ◉ TRAI's mission is to create and nurture conditions for growth of telecommunications in the country in a manner and at a pace which will enable India to play a leading role in emerging global information society.

  ◉ One of the main objectives of TRAI is to provide a fair and transparent policy environment which

promotes a level playing field and facilitates fair competition.

◎ In pursuance of above objective TRAI has issued from time to time a large number of regulations, orders and directives to deal with issues coming before it and provided the required direction to the evolution of Indian telecom market from a Government owned monopoly to a multi operator multi service open competitive market.

◎ The directions, orders and regulations issued cover a wide range of subjects including tariff, interconnection and quality of service as well as governance of the Authority.

◎ The TRAI Act was amended by an ordinance, effective from 24 January 2000, establishing a Telecommunications Dispute Settlement and Appellate Tribunal (TDSAT) to take over the adjudicatory and disputes functions from TRAI. TDSAT was set up to adjudicate any dispute between a licensor and a licensee, between two or more service providers, between a service provider and a group of consumers, and to hear and dispose of appeals against any direction, decision or order of TRAI.

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4.
First Advance Estimates of National Income, 2017-18

" *The Central Statistics Office (CSO), Ministry of Statistics and Programme Implementation has released the First Advance estimates of national income at constant (2011-12) and current prices, for the financial year 2017-18.*

Real GDP

Real GDP or Gross Domestic Product (GDP) at constant (2011-12) prices in the year 2017-18 is likely to attain a level of Rs.129.85 lakh crore, as against the Provisional Estimate of GDP for the year 2016-17 of Rs. 121.90 lakh crore, released on 31st May 2017.

The growth in GDP during 2017-18 is estimated at 6.5percent as compared to the growth rate of 7.1per cent in 2016-17.

Gross Value Added (GVA) at Basic Prices

Anticipated growth of real GVA at basic prices in 2017-18 is 6.1 percent as against 6.6 percent in 2016-17.

The sectors which registered growth rate of over 7.0 percent are, 'public administration, defence and other services', 'Trade, hotels, transport, communication and services related to broadcasting', 'electricity, gas, water supply and other utility services' and 'financial, real estate and professional services'.

Agriculture, forestry and fishing

The 'agriculture, forestry and fishing' sector is likely to show a growth of 2.1 per cent in its GVA during 2017-18, as against the previous year's growth rate of 4.9 percent.

Manufacturing

GVA at basic prices for 2017-18 from 'manufacturing' sector is estimated to grow by 4.6 percent as compared to growth of 7.9 percent in 2016-17.

Per Capita Income

The per capita income in real terms (at 2011-12 prices) during 2017-18 is likely to attain a level of Rs.86660 as compared to Rs.82269 for the year 2016-17. The growth rate in per capita income is estimated at 5.3 per cent during 2017-18, as against 5.7 per cent in the previous year.

World Bank estimation

The 2018 Global Economics Prospect (GEP) released by the World Bank projects India's GDP growth to pick up to 7.3% in 2018-19 and to 7.5% for the next two years.

Underlined Concepts and Terms

The First Advance Estimates of GDP have been released in accordance with the release calendar of National Accounts. The approach for compiling the advance estimates is based on benchmark-indicator method. The Sector-wise estimates are obtained by extrapolation of indicators like (i) Index of Industrial Production of first 7 months of the financial year, (ii) financial performance of listed companies in the private corporate sector available upto quarter ending September,2017 (iii) 1st advance estimates of crop production, (iv) accounts of Central & State Governments, information on indicators like deposits & credits, passenger and freight earnings of railways, passengers and cargo handled by civil aviation, cargo handled at major sea ports, sales of commercial vehicles etc. available for first 8 months of the financial year. With the introduction of Goods and Services Tax (GST) from 1st July 2017 and consequent changes in the tax structure, the total tax revenue used for GDP compilation include non-GST revenue and GST revenue.

► **National Income Concepts:**

- ◎ **Gross domestic product**
  - ◆ Gross domestic product (GDP) refers to total market value of all final goods and

services produced in an economy over a period of one year.

- ◎ **Real GDP**
  - ◆ Real GDP refers to the current year production of goods and services valued at base year prices. Such base year prices are constant prices.

- ◎ **Nominal GDP**
  - ◆ Nominal GDP refers to current year production of final goods and services valued at current year prices.

- ◎ **Gross National Product (GNP)**
  - ◆ GNP is a measure of the value of output produced by the nationals of a country irrespective of the geographical boundaries of a nation. It refers to the **output of Indian citizens both within India and in all the countries of world.**

- ◎ **Net Foreign Factor Income (NFFI)**
  - ◆ Net foreign factor income (NFFI) is the difference between the aggregate amount that a country's citizens and companies

earn abroad, and the aggregate amount that foreign citizens and overseas companies earn in that country.

◎ **Net National Product (NNP)**

◆ NNP is the value of the total output of the economy calculated without double counting, this is GNP, less allowance for depreciation (D) of the capital assets used in the production process.

◎ **Net Domestic Product (NDP)**

◆ Net Domestic lower Product (NDP) is the GDP calculated after adjusting the value of 'depreciation'.

➤ Core sector output 6.8%

◎ India's core sector industrial production grew at a faster pace of 6.8% in November 2017 against 4.7% in October 2017 and 4.9% in November 2016.

◎ The Eight Core Industries comprise

(1) Coal – Coal Production excluding Coking coal.

(2) Crude Oil – Total Crude Oil Production.

(3) Natural Gas – Total Natural Gas Production.

(4) Refinery Products – Total Refinery Production (in terms of Crude Throughput).

(5) Fertilizer – Urea, Ammonium Sulphate (A/S), Calcium Ammonium Nitrate (CAN), Ammonium chloride (A/C), Diammonium Phosphate (DAP), Complex Grade Fertilizer and Single superphosphate (SSP).

(6) Steel – Production of Alloy and Non-Alloy Steel only.

(7) Cement – Production of Large Plants and Mini Plants.

(8) Electricity – Actual Electricity Generation of Thermal, Nuclear, Hydro, imports from Bhutan.

➤ Index of Industrial Production

◎ IIP is a composite indicator that measures the growth rate of industry groups classified under,

◆ Broad sectors, namely, Mining, Manufacturing and Electricity

◆ Use-based sectors, namely Basic Goods, Capital Goods and Intermediate Goods.

◆ Currently IIP figures are calculated considering 2004-05 as base year.

➤ NIA Vs IIP

◎ IIP is used as core ingredient in the compilation of annual and quarterly national accounts and forecasts of GDP. Furthermore, the availability of IIP on a monthly basis makes it amenable to be used as a reference series in the compilation of cyclical indicators.

◎ National Income Accounts (NIA) uses IIP figures to proxy the growth in unorganized sectors, which is otherwise estimated only with a gap of 5 years.

➤ About Central Statistics Office

◎ The Central Statistics Office (CSO), an attached office of the ministry, coordinates the statistical activities in the country and evolves statistical standards.

◎ Its activities inter-alia, include compilation of National Accounts, Index of Industrial Production, Consumer Price Indices for Urban/ Rural/ Combined, Human Development Statistics, including Gender Statistics in the states and union territories and disseminates Energy Statistics, Social and Environment Statistics and prepares the National Industrial Classification.

◎ The CSO, Ministry of Statistics and Programme Implementation releases Consumer Price Indices (CPI) for all-India and states/union territories separately for rural, urban and combined (rural plus urban) for the purpose of temporal price comparison with effect from January, 2011 with 2010 as the base year. The annual inflation rates based on this CPI series are available since January, 2012.

◎ The Central Statistics Office (CSO), Ministry of Statistics and Programme Implementation releases Consumer Price Indices (CPI) on base 2010 = 100 for all India and states/union territories separately for rural, urban and combined every month since January, 2011 and annual inflation rates from January 2012 onwards. The weighing diagram for this CPI series is based on the consumption pattern derived from the results of the NSS 61st round Consumer Expenditure Survey (2004-05).

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Snippets

Snippets related to ECONOMY

A. Bail-in clause in FDRI

- A clause in the Financial Resolution and Deposit Insurance Bill 2017. The clause lays the ground for a 'bail-in' of failing financial institutions. Unlike a bail-out, which constitutes the injection of taxpayers' funds to shore up finances of a financial institution, a bail-in involves the use of depositors' funds to do the same.

- In the proposed Bill, the bail-in clause includes a provision of "cancelling a liability owed by a specified service provider" and "modifying or changing the form of a liability owed by a specified service provider". Bank deposits are a form of liability for the bank as it has to pay interest on them. According to the drafting committee of the Bill, a bail-in can be typically used in cases where it is necessary to continue the services of the ailing financial institution, but the option of selling it is not feasible.

B. Tele-density decreases

- Telephone density or tele-density is the number of telephone connections for every hundred individuals living within an area. It varies widely across the nations and also between urban and rural areas within a country.

- The overall tele-density in India marginally decreased to 91.56% in September 2017, compared with 93.71% in August 2017 due to a decline in the urban subscriber base, according to a report by India Ratings.

- 168.2% urban tele-density in September 2017, compared with 174% in August 2017, whereas rural tele-density was flat at 56.3% representing untapped growth opportunity.

C. Algo trading framework

- Algorithmic trading, also referred to as algo trading and black box trading, is a trading system that utilizes advanced and complex mathematical models and formulas to make high-speed decisions and transactions in the financial markets.

- Algorithmic trading involves the use of fast computer programs and complex algorithms to create and determine trading strategies for optimal returns.

D. P2P

- Peer-to-peer (P2P) computing or networking is a distributed application architecture that partitions tasks or workloads between peers. Peers are equally privileged, equipotent participants in the application. They are said to form a peer-to-peer network of nodes.

- In its simplest form, a peer-to-peer (P2P) network is created when two or more PCs are connected and share resources without going through a separate server computer

- Peer-to-peer networking involves data transfer from one user to another without using an intermediate server.

E. Shell Companies

- The Companies Act, 2013 has not defined what a 'shell company' is and as to what kind of activities would lead to a company being termed a 'shell'.

- Shell companies are typically corporate entities which do not have any active business operations or significant assets in their possession. The government views them with suspicion as some of them could be used for money laundering, tax evasion and other illegal activities.

- The Centre has initiated action against more than two lakh shell companies as part of Operation Clean Money. Separately, the market regulator Securities and Exchange Board of India has identified 331 companies and initiated action against them

F. National Logistic Index

- Logistics Ease Across Different States (LEADS) index developed by the Commerce and Industry Ministry and Deloitte ranked states in terms of the logistical support they provided to promote goods trade.

- The ranking is based on parameters such as the competitiveness of pricing, timeliness and availability of infrastructure and that of services, among others. It aims to encourage states to provide the policy push towards improving their logistics-related infrastructure.

- It also noted that logistics services and infrastructure was highly concentrated in 15 states and Union Territories, which account for 90 per cent of total exports by value.

- On the global front, India's position in the annual World Bank's Logistics Performance Index had improved to 35 in 2016.

REPORT CARD
Doing it right and wrong on logistics

Top states	Bottom-rung states
Gujarat	Jharkhand
Punjab	West Bengal
Andhra Pradesh	Assam
Karnataka	Bihar
Maharashtra	Jammu & Kashmir

Source: Logistics Ease Across Different States by Commerce and Industry Ministry & Deloitte

G. Services PMI (Purchasing Managers Index)

- According to the recent Services PMI released by the Nikkei India, the private sector activity in the services sector contracted in November, with the reading falling to 48.5 from 51.7 in October.

- The Nikkei India Services PMI reading fell below 50 because the introduction of the goods and services tax (GST) had led to 'subdued demand conditions'. New business in the services sector also fell.

- The PMI survey said, 'Of the 15% of the survey panel that reported a decline in new work, a number commented that recent government policies (GST) had contributed to sluggish demand and lower customer turnout. Four of the five categories monitored by the survey— transport & storage, consumer services, information & communications and real estate & business services—recorded reductions in new work.'

H. Government discontinues 8% taxable bonds

- The finance ministry on Monday announced discontinuation of the 8 per cent Savings (Taxable) Bonds, 2003 — an instrument that provided attractive returns to savers amid declining interest rates in the economy.

- These bonds mature in six years and are not tradable. These can be bought by individuals and HUF's in multiples of Rs 1,000 without any upper limit and the interest income on these bonds is taxable.

- Investors can apply for these bonds only offline by filling up a simple form and using the services of a distributor. The bonds, issued through banks such as SBI, Axis, ICICI and HDFC, and financial institutions, such as Stock Holding Corporation of India, are available in a physical format. Upon allotment, the certificate is couriered to investors. These bonds are not transferable.

- These bonds with a sovereign rating were a preferred choice for many senior citizens, retirees and those looking for fixed income.

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State News

1
National Register of Citizens in Assam

> *Assam first National Register of Citizens has been published with names of 1.9 crore people as state's legal citizens. The NRC, for which a total of 3.29 crore people had filed an application, is aimed at identifying illegal immigrants in the state. The unpublished names are still under stages of verification.*

Underlined Concepts

▶ About Assam

- Situated south of the eastern Himalayas along the Brahmaputra and Barak River valleys.

- The first oil well in Asia was drilled in Assam.

- Majuli world's largest river island is in Assam

- One-horned Rhino in Kaziranga National Park.

- Longest bridge of India – Dhola Sadiya bridge is on Lohit river

▶ About NRC

- The National Register of Citizens (NRC) is the register containing names of Indian CITIZENS.

- National Register of Citizens (NRC) was prepared first in 1951 after the conduct of the Census of 1951

- The NRC will be now updated to include the names of those persons (or their descendants) who appear in the NRC, 1951, or in any of the Electoral Rolls up to the midnight of 24th March, 1971 or in any one of the other admissible documents issued up to midnight of 24th March, 1971, which would prove their presence in Assam or in any part of India on or before 24th March, 1971.

- All the names appearing in the NRC, 1951, or any of the Electoral Rolls up to the midnight of 24th March 1971 together are called Legacy Data. Thus, there will be two requirements for inclusion in updated NRC – 1.) existence of a person's name in the pre-1971 period & 2.) providing linkage with that person.

- The provisions governing NRC update in Assam are T**he Citizenship Act, 1955, and The Citizenship (Registration of Citizens and Issue of National Identity cards) Rules,2003.**

- The demands to update the NRC of 1951 were first raised by the All Assam Students' Union (AASU) and Assam Gana Parishad more than three decades ago. The organisations had submitted a memorandum to the Centre on January 18, 1980, two months after launching the anti-illegal foreigners Assam Movement. On November 17, 1999, at an

official-level tripartite meeting to review the implementation of the Assam Accord, a decision was taken that the NRC would be updated and the Centre sanctioned Rs 20 lakh for the purpose and released Rs 5 lakh of it to start the exercise. Later, Prime Minister Manmohan Singh led government took the final decision to update NRC on May 5, 2005. Thereafter, the government created a directorate for updating the NRC and the process of computerisation of the voters' list up to 1971 and the NRC of 1951 began.

➤ The Citizenship (Registration of Citizens and Issue of National Identity cards) Rules, 2003

- ◉ It states that for the formation of National Register of Indian Citizens (1) The Registrar

General of Citizen Registration shall establish and maintain the National Register of Indian Citizens. (2) The National Register of Indian Citizens shall be divided into sub-parts consisting of the State Register of Indian Citizens, the District Register of Indian Citizens, the Sub-district Register of Indian Citizens and the Local Register of Indian Citizens and shall contain such details as the Central Government may, by order, in consultation with the Registrar General of Citizen Registration, specify.

➤ The Citizenship Act, 1955

- ◉ This act mentions four ways in which a person may be Indian citizen viz. by birth, by descent, by registration and by naturalization. Citizenship by birth and descent are called natural citizens.

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2.

Kerala to preserve DNA Samples of Cyclone Victims

❝ *The Kerala government has started preserving the DNA samples of those killed in Cyclone Ockhi. The DNA samples would help the government in extending financial benefits and compensation to the family members as there were chances of the money being cornered by touts and middlemen.* ❞

Underlined Concepts

➤ DNA profiling

- ◉ DNA profiling (also called DNA fingerprinting, DNA testing, or DNA typing) is the process of determining an individual's DNA characteristics, called a DNA profile, that is very likely to be different in unrelated individuals, thereby being as unique to individuals as are fingerprints (hence the alternative name for the technique). DNA profiling with the aim of identifying not an individual but a species is called DNA barcoding.

➤ Samples used for DNA profiling

- ◉ The biological material used to determine a DNA profile include blood, semen, saliva, urine, feces, hair, teeth, bone, tissue and cells.

➤ Applications

- ◉ DNA profiling is most commonly used as a forensic technique in criminal investigations to identify an unidentified person or whose identity needs to be confirmed, or to place a person at a crime scene or to eliminate a

person from consideration. DNA profiling has also been used to help clarify paternity, in immigration disputes, in parentage testing and in genealogical research or medical research.

DNA fingerprinting has also been used in the study of animal and floral populations and in the fields of zoology, botany, and agriculture.

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3.
Nagaland declared as disturbed area for 6 more months

" *The entire Nagaland has been declared as "disturbed area" for six more months, till June- end, under the controversial AFSPA, which empowers security forces to conduct operations anywhere and arrest anyone without any prior notice.*

The Union Home Ministry said it is of the opinion that the area comprising the whole of Nagaland is in such a "disturbed and dangerous condition" that use of armed forces in aid of the civil power is necessary. A home ministry official said the decision to continue the declaration of Nagaland as "disturbed area" has been taken as killings, loot and extortion have been going in various parts of the state which necessitated the action for the convenience of the security forces operating there. "

Underlined Concepts

▶ **Disturbed Area Definition**

◉ Any area which is declared "disturbed" under disturbed areas act enables armed forces to resort to the provisions of AFSPA. The choice of declaring any area as 'disturbed' vests both with state and central government. After an area comes under the ambit of AFSPA, any commissioned officer, warrant officer, non-commissioned officer or another person of equivalent rank can use force for a variety of reasons while still being immune to the prosecution.

▶ **Power of Declaration**

◉ Power to Declare Areas to be Disturbed Areas lies to the Governor of that State or the Administrator of that Union territory or the Central Government, in either case, if of the opinion that the whole or any part of such State or Union territory, as the case may be, is in such a disturbed or dangerous condition that the use of armed forces in aid of the civil powers in necessary, the Governor of that State or the Administrator of that Union territory or the Central Government, as the case may be, may, by notification in the Official Gazette, declare the whole or such part of such State or Union territory to be a disturbed area.

▶ **What are the provisions of AFSPA?**

- The "armed forces" may shoot to kill or destroy a building on mere suspicion. A non-commissioned officer or anyone of equivalent rank and above may use force based on opinion and suspicion, to arrest without warrant, or to kill. He can fire at anyone carrying anything that may be used as a weapon, with only "such due warning as he may consider necessary". Once AFSPA is implemented, "no prosecution... shall be instituted except with the previous sanction of the central government, in respect of anything done or purported to be done" under this Act.

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4.

Mahadayi River Dispute

> *The sharing of the waters of this river is a cause of dispute between the governments of Karnataka and Goa. The Karnataka government proposes to divert some water from the Mahadayi river to the Malaprabha river basin as part of the Kalasa-Banduri Nala project, as approximately 200 tmc feet of water flows into the Arabian Sea now without being used for anything.*
>
> *The Mahadayi water-sharing dispute has the states of Goa, Maharashtra and Karnataka vying for water from the Mahadayi or Mandovi river, which flows through the three states.*
>
> *The water sharing issue reached a flash point when the Karnataka decided to implement a long pending drinking water project by building a canal across two tributaries of the Mahadayi – Kalasa and Banduri.*
>
> *The Mahadayi Water Disputes Tribunal was set up on 2010*

Underlined Concepts

▶ Genesis of dispute

- Goa, considering its geographical location, has an upper hand on its water. The river is a mere cluster of spring at its origin, Bhimgad in Karnataka. It forms into a river at Degaon village in Khanapur taluk of the state's Belagavi district. The regions of Northern Karnataka, along with the bordering areas of Maharashtra and Goa, have been depending on the Mahadayi river basin for all their water needs.

- The Mahadayi water diversion was first planned in 1970 by engineer SG Balekundri. The plan was to feed Malaprabha river and store the water in Navilatirtha dam in Karnataka's Dharwad district. This dam, built in the 1970s, has not been filled to its capacity, barring three or four times.

- Hence, the Karnataka government was keen on diverting the water from Mahadayi to be stored here. Thanks to the increasing water scarcity during the summer months followed

by unpredictable monsoon year after year, the water needs of people in North Karnataka could no longer be met with the water the state is currently getting. That is when Karnataka started demanding diversion of the river.

► **About Mahadayi River**

◎ The Mahadayi/Mandovi River also known as Mahadayi or Mhadei river, is described as the lifeline of the Indian state of Goa. The river has a length of 77 kilometres (48 miles), 29 kilometres (18 miles) in Karnataka and 52 kilometres (32 miles) in Goa. It originates from a cluster of 30 springs at Bhimgad in the Western Ghats in the Belagavi district of Karnataka. The river has a 2,032 km2 catchment area in Karnataka and a 1,580 km2 catchment area in Goa.[3] With its cerulean waters, Dudhsagar Falls and Varapoha Falls, it is also known as the Gomati in a few places. The Mandovi and the Zuari are the two primary rivers in the state of Goa.

◎ Three large freshwater isles — Divar, Chorao and Vashee are present in the Mandovi near the town of Old Goa.

► **Inter-State Water Dispute Redressal Mechanism**

  ► **Article 262**

    ◆ Article 262 of the Constitution provides for adjudication of disputes relating to waters of interstate rivers or river valleys wherein it states that the Parliament may by law provide for the adjudication of any dispute or complaint with respect to the use, distribution or control of the waters of, or in, any interstate river or river valley.

    ◆ The Inter-State river water disputes are governed by the Inter-State Water Disputes Act, 1956.

    ◆ As per the current provisions of the 1956 Act, a tribunal can be formed after a state government approaches Union Government with such request and the Centre is convinced of the need to form the tribunal.

    ◆ This act was further amended in 2002 to include the major recommendations of 'The Sarkaria Commission'.The amendments mandated a one year time frame to setup the water disputes tribunal and also a 3 year time frame to give a decision.

    ◆ The Inter-State River Water Disputes (Amendment) Bill, 2017

◆ The Bill seeks to amend the Inter-State River Water Disputes Act, 1956.

◆ Under the Act, when a complaint is received from a state government regarding a water dispute, the central government may ask the affected states to undertake negotiations to settle the dispute. If the dispute cannot be settled through negotiations, the central government has to set up a Water Disputes Tribunal within a year of receiving such a complaint.

◆ The Bill replaces this provision and requires the central government to set up a Disputes Resolution Committee (DRC), for resolving any inter-state water dispute amicably. The DRC will get a period of one year, extendable by six months, to submit its report to the central government.

◆ The tribunal shall consist of a Chairperson, Vice-Chairperson, and not more than six nominated members (judges of the Supreme Court or of a High Court), nominated by the Chief Justice of India. The central government may appoint two experts serving in the Central Water Engineering Service, not below the rank of Chief Engineer, as assessors to advise the bench in its proceedings.

► **Similar river water sharing disputes between states**

  ◆ **River Krishna**
    • Andhra Pradesh, Karnataka and Maharashtra

  ◆ **River Godavari**
    • Andhra Pradesh, Karnataka, Maharashtra, Madhya Pradesh and Odisha

  ◆ **River Narmada**
    • Maharashtra, Madhya Pradesh, Rajasthan and Gujarat

  ◆ **River Cauvery**
    • Tamil Nadu, Karnataka, Kerala and Puducherry

  ◆ **River Krishna**
    • Andhra Pradesh, Karnataka and Maharashtra

  ◆ **River Vansadhara**
    • Andhra Pradesh and Odisha

  ◆ **River Ravi & Beas – Sutlej-Yamuna Link Canal**
    • Punjab and Haryana

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5.
Arunachal Pradesh: Open Defecation Free

> *Arunachal Pradesh emerged as the second state in the Northeast, after Sikkim, to be declared Open Defecation Free.*

Underlined Concepts & Terminologies

➤ Meaning of Open defecation

- Open defecation refers to the practice whereby people go out in fields, bushes, forests, open bodies of water, or other open spaces rather than using the toilet to defecate. The practice is rampant in India and the country is home to the world's largest population of people who defecate in the open and excrete close to 65,000 tonnes of faeces into the environment each day.

- Open defecation poses a serious threat to the health of children in India. The practice is the main reason India reports the highest number of diarrhoeal deaths among children under-five in the world.

- Every year, diarrhoea kills 1,17,285 children under five in India. Children weakened by frequent diarrhoea episodes are more vulnerable to malnutrition, stunting, and opportunistic infections such as pneumonia.

- Diarrhoea and worm infection are two major health conditions that affect school-age children impacting their learning abilities. Open defecation also puts at risk the dignity of women in India. Women feel constrained to relieve themselves only under the cover of dark for reasons of privacy to protect their dignity.

- Open defecation exposes women to the danger of physical attacks and encounters such as snake bites. Poor sanitation also cripples national development: workers produce less, live shorter lives, save and invest less, and are less able to send their children to school.

➤ Open defecation free definition

- ODF is the termination of faecal-oral transmission, defined by a) no visible faeces found in the environment/village; and b) every household as well as public/community institutions using [a] safe technology option for disposal of faeces.

- {A} safe technology option means no contamination of surface soil, ground water or surface water; excreta inaccessible to flies or animals; no handling of fresh excreta; and freedom from odour and unsightly condition.

- Open defecation free states are: Himachal Pradesh, Kerala and Haryana, Sikkim, Arunachal Pradesh.

➤ WASH in Health Centres

- UNICEF in India is working in collaboration with the Health ministry to map WASH compliance in health facilities in the most deprived districts and is making recommendations to address non-compliance.

- The WASH section works with state governments to identify where institutions need capacity-building. For example, it is helping reform State Water and Sanitation Missions to become responsive when they are in mission mode.

★★★★★★★★★

Snippets

A. Karnataka human rights commission gets new chairman

- DH Waghela, has been appointed as Chairman of the Karnataka State Human Rights Commission (KSHRC)

- Dhirendra Hiralal Waghela was the former Chief Justice of the Bombay High Court ,chief Justice of the Odisha High Court and Karnataka High Court.

- Governor appoints chairperson and members on recommendations of the committee headed by the Chief Minister.

- **SHRC**

  - The Protection of Human Rights Act of 1993 provides for the creation of not only the National Human Rights Commission but also a State Human Rights Commission at the state level.

  - A State Human Rights Commission can inquire into violation of human rights only in respect of subjects mentioned in the State List (List-II) and the Concurrent List (List-III) of the Seventh Schedule of the Constitution. However, if any such case is already being inquired into by the National Human Rights Commission or any other Statutory Commission, then the State Human Rights Commission does not inquire into that case.

B. Bal doctors

- The health department of Gujarat has introduced the concept of Bal (child) doctors in an attempt to spread awareness about health and hygiene among school children in government school

- According to officials of the health department, there will be one 'Bal' doctor for around 30 students. The student doctor's task will be to monitor the health of children and spread awareness

- landing on the far side of the moon is undoubtedly one of the most challenging missions ever launched by any of the world's superpowers. The far side of the moon known as 'South Pole-Aitken Basin'still remains

a mystery among space scientists and by sending a probe there, China will outdo the historical achievements of the US and USSR.

- *Responsibilities of Bal Doctors*

  - The Bal Doctors will be equipped with stethoscopes and medicines which they will dispense to their classmates

  - The Bal Doctors will be given a stock of Ayurvedic medicines to deal with any health related issue

  - These Bal Doctors will give Ayurvedic treatment in cases of minor diseases

  - They will encourage other students to wash their hands before mid-day meal

  - They will also monitor Weekly Iron and Folic Acid Supplementation (WIFS) Programme (of the National Health Mission) which is held every Wednesday

  - They will work to make their fellow students addiction-free and give primary information about seasonal diseases

  - The Bal Doctor will be given an apron and badge so that he looks like a doctor and will be additionally given a torch, Ayurvedic medicine kit, booklets and posters of health-related problems

  - He will also be trained under a Rashtriya Bal Swasthya Karyakram (RBSK) of the health department

C. Gandikota-chitravathi project

- Chief Minister of Andhra Pradesh inaugurated the Gandikota-Chitravathi lift irrigation scheme at Parnapalli in Pulivendula constituency of Kadapa district.

- Under the scheme, 7.50 tmcft water would be lifted through five delivery points to the Chitravathi balancing reservoir, to irrigate 60,000 acres of ayacut through drip irrigation and gravity.

- Nearly 1,200 cusecs Krishna water was being lifted every day from Gandikota reservoir

- **Gandikota River**

  - Gandikota is a village on the right bank of the river Pennar, 15 km from Jammalamadugu

in Kadapa district, Andhra Pradesh, India.

◆ Gandikota was ruled by powerful Telugu dynasty, the Pemmasani Dynasty and was one of the most prominent forts in the country

⊙ **Chitravathi river**

◆ The Chitravathi is an inter-state river in southern India that is a tributary of the Pennar River. Rising in Karnataka, it flows into Andhra Pradesh and its basin covers an area of over 5,900 km2. The pilgrim town of Puttaparthi is located on its banks.

◆ The river joins the Pennar at Gandikota in Kadapa district where the Gandikota irrigation project is being undertaken by the Government of Andhra Pradesh as part of its Jalayagnam project.

★★★★★★★★★★

Science and Technology

1
Gravitational Waves

Gravitational waves are ripples in the space time curvature travelling outward from the source produced by violent events such as collision of 2 black holes or by supernova explosion.

Key Facts:

- *They are produced by accelerating masses just the same as accelerating charged particles produce radio waves.*

- *Gravitational waves carry energy away from their sources.*

- *Higher acceleration generates powerful gravitational waves, since these huge systems generating G-waves are millions of light years away.*

The proposed observatory in Maharashtra is expected to start functioning by 2025.

Underlined Concepts

▶ **LIGO-India project**

- ⊙ The LIGO-India project will establish a state-of-the-art gravitational wave observatory in collaboration with the LIGO Laboratory in the U.S. run by Caltech and Massachusetts Institute of Technology.

- ⊙ The project will bring unprecedented opportunities for our scientists and engineers to dig deeper into the realm of gravitational wave and take global leadership in this new astronomical frontier.

- ⊙ LIGO-India will also bring considerable opportunities in cutting edge technology for the Indian industry which will be engaged in the construction of eight kilometre long beam tube at ultra-high vacuum on a levelled terrain.

- ⊙ The LIGO-India project will be jointly co-ordinated and executed by Indian lead institutions viz., the Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune, the Institute for Plasma Research (IPR), Gandhinagar and the Raja Ramanna Centre for Advanced Technology (RRCAT), Indore.

▶ **What is the significance of the discovery?**

- GW Astronomy: this discovery opens a new avenue for space exploration.

- It's a primary tool for exploring the universe is observation through telescopes that rely only on light waves reaching earth from outer space.

- The discovery almost confirms Einstein's General Relativity beyond doubt. This will help in developing further research in several theoretical fields such as Quantum Gravity and unification of the fundamental forces.

★★★★★★★★★★

2.
Pratyush Computer

" *India's fastest and first 'multi-petaflops' supercomputer 'Pratyush' was established at the Indian Institute of Tropical Meteorology (IITM), Pune.*

The High-Performance Computing (HPC) facility will help in improving weather and climate forecasts.

Pratyush is the fourth fastest supercomputer in the world dedicated for weather and climate research, and follows machines in Japan, USA and the United Kingdom.

It will also move an Indian supercomputer from the 300s to the 30s in the Top500 list globally.

The machines will be installed at two government institutes: 4.0 petaflops HPC facility at IITM, Pune; and 2.8 petaflops facility at the National Centre for Medium Range Weather Forecast, Noida. "

Underlined Concepts

➤ Supercomputer

- It is a computer that performs at or near the currently highest operational rate for computers. A supercomputer is typically used for scientific and engineering applications that must handle very large databases or do a great amount of computation (or both).

- Performance of a supercomputer is measured in floating-point operations per second (FLOPS) instead of million instructions per second (MIPS). As of 2015, there are supercomputers which can perform up to quadrillions of FLOPS.

➤ National Supercomputing Mission

- To improve the capabilities of supercomputers beyond current levels, the National Supercomputing Mission has been launched by the government to connect national academic and R&D institutions with a grid of over 70 high-performance computing facilities at an estimated cost of Rs 4,500 crore.

- These supercomputers will also be networked on the National Supercomputing grid over the National Knowledge Network (NKN).

- The NKN is another program of the government which connects academic institutions and R&D labs over a high speed network.

- The Mission also includes development of highly professional High Performance Computing (HPC) aware human resource for meeting challenges of development of these applications.

- The mission would be implemented by the Department of Science and Technology and Department of Electronics and Information Technology (Deity) through Center for Development of Advanced Computing (C-DAC) and Indian Institute of Science (IISc), Bangalore.

▶ **Indian Institute of Tropical Meteorology**

- The Indian Institute of Tropical Meteorology (IITM) is a scientific institution based in India for expanding research in Tropical Indian Ocean (Formerly on Tropical meteorology) of the tropics in general with special reference to monsoon meteorology and air Sea interaction of India monsoon.

★★★★★★★★★★

3.
Bharatnet Covers 1 Lakh Gram Panchayats

❝ *Government has achieved a significant milestone under the BharatNet by completing Phase-1 of the project by connecting over one lakh Gram Panchayats (GP) across the country with high speed optical fiber network as per the declared deadline of 31 Dec 2017.*

BharatNet network built under Phase 1 envisages delivery of high-speed broadband services in over 2.5 lakh villages benefitting more than 200 million rural Indians. ❞

Underlined Concepts

▶ **Bharat Net Project**

- Broadband access to every citizen is a key pillar of Digital India.

- BharatNet has a vision to establish a scalable Broadbank network by 2017 towards providing affordable broadband connectivity of 2 Mbps to 20 Mbps to all rural households and institutions.

- This project has evolved from the earlier National Optical Fibre Network (NOFN) project of providing 100 Mbps to all gram panchayats (GPs).

- At present, a special purpose vehicle, Bharat Broadband Network Ltd (BBNL), under the telecom ministry is handling the roll out of optical fiber network. The project is being executed by BSNL, Railtel and Power Grid.

- A committee constituted reviewed the earlier project and proposed a modified project called BharatNet.

- **Funding**

  - Bharat Net is being funded through Universal Service Obligation Fund (USOF). The Universal Service Obligation Fund (USOF) was established with the fundamental objectives of providing access to 'Basic' telegraph services to people in the rural and remote areas at affordable and reasonable prices.

  - Subsequently the scope was widened to provide subsidy support for enabling access to all types of telegraph services including mobile services, broadband connectivity and creation of infrastructure like OFC in rural and remote areas.

  - The first phase of BharatNet was scheduled to be completed by the end of the year 2017.

  - Under the second phase, the government will lay down optical fiber network across 1.5 lakh village Panchayats.

➤ **About Optical Fibers**

- Fiber-optic communication is a method of transmitting information from one place to another by sending pulses of light through an optical fiber. The light forms an electromagnetic carrier wave that is modulated to carry information.

- Fiber is preferred over electrical cabling when high bandwidth, long distance, or immunity to electromagnetic interference are required.

- Optical fibres are made up of three components:

  - **Core –** Thin glass centre of the fibre where the light travels

  - **Cladding–**Outer optical material surrounding the core that reflects the light back into the core.

  - **Buffer Coating–** Plastic coating that protects the fibre from damage and moisture.

★★★★★★★★★★

4.
National Programme for Control of Viral Hepatitis

" *The Government of India has launched a National Programme for prevention and control of viral Hepatitis C.*

With the focus on Hepatitis C, an anti-viral treatment that costs $63,000-94,000 for the full course in the US and Europe will be provided free at all government health set-ups.

Hepatitis C is caused by a blood-borne virus which affects the liver. It could spread through use of injectable drugs, unsafe injection practises, unsafe health care, and transfusion of unscreened blood and blood products. However, unlike Hepatitis B, it is not sexually transmitted. There is no known vaccine for Hepatitis C.

Objectives

- *To establish laboratory network for laboratory based surveillance of viral hepatitis in different geographical locations of India.*

- *To ascertain the prevalence of different types of viral hepatitis in different zones of the country.*

- *To develop technical material for generating awareness among healthcare providers and in the community about waterborne and blood borne hepatitis.*

Activities undertaken are - *Development of surveillance of viral hepatitis in various geographical regions*

Status in India

- *About 1.2 crore people are reported to be suffering from Hepatitis C in the country — six times the number of HIV/ AIDS patients.*

- *A significant number of people infected with Hepatitis C develop cirrhosis of the liver or liver cancer, which are responsible for a bulk of the 3,99,000 Hepatitis C deaths annually across the world, according to WHO estimates.* **"**

Underlined Concepts

▶ About Hepatitis

- Hepatitis is an inflammatory disease of the liver, caused due to viral infection. In 2015, it led to nearly 1.34 million deaths worldwide; most of the viral hepatitis deaths being due to chronic liver disease/primary liver cancer.

- Viral hepatitis is a public health problem caused by any of the known five hepatotropic viruses, namely - hepatitis A, B, C, D and E which are highly divergent in their structure, epidemiology, mode of transmission, incubation period, signs/symptoms, diagnosis, prevention and treatment options.

- In India, viral hepatitis (A to E) remains a major public health challenge with intermediate to high endemicity for Hepatitis B. An estimated 40 million individuals are infected and the population prevalence being nearly 3-4%. However, there is a wide geographic variation in its prevalence – being the highest among natives of Andaman Islands and Arunachal Pradesh.

- Hepatitis A virus (HAV) is often present in the faeces of infected individuals and is commonly transmitted through contaminated water/food and seldom through unsafe sex (incubation period: 15-50 days).

- Hepatitis B virus (HBV) is commonly transmitted through infected blood and semen/ other body fluids, particularly during the transfusion of contaminated blood/ blood products, use of contaminated needles/syringes or sexual contact with an infected person; and sometimes from infected mothers to infants at the time of birth.

- Hepatitis C virus (HCV) is also transmitted through infected blood and semen/other body fluids. Majority of the chronic Hepatitis B or C patients are incognizant of the infection; and are, thus, at a serious risk of developing cirrhosis or liver cancer.

- Hepatitis D virus (HDV) – a RNA virus, requires hepatitis B virus for its replication; and therefore, occurs only in HBV infected individuals.

- Hepatitis E virus (HEV) is a small virus with single-stranded RNA genome which is mostly transmitted via contaminated water or food (incubation period: 2-10 weeks).

- World Hepatitis Day (28th July) which is celebrated every year. Theme for the year 2017 was 'Eliminate Hepatitis'.

★★★★★★★★★★

5.
Prof. SN Bose 125th Anniversary

> *Government has started a year-long celebration to mark the 125th birth anniversary of eminent physicist Satyendra Nath Bose who was born on 1st January in 1894.*
>
> *The celebrations are being spearheaded by S.N.Bose National Centre for Basic Sciences (SNBNCBS), Kolkatta.*
>
> *A theoretical physicist, Bose is known for his path breaking work on foundations of Quantum Statistics, laying the basis for the modern atomic theory.*
>
> *His contribution is Bose Einstein Condensation. Bose was also a crusader for teaching of science in vernacular languages, besides being an accomplished musician.*
>
> *The class of particles that obey Bose–Einstein statistics, Bosons, was named after Bose by Paul Dirac.*
>
> *In 1937, Rabindranath Tagore dedicated his only book on science, Visva–Parichay, to Satyendra Nath Bose.*
>
> *A Fellow of the Royal Society, he was awarded India's second highest civilian award, the Padma Vibhushan in 1954 by the Government of India. In 1958, he became a Fellow of the Royal Society. He was nominated as member of Rajya Sabha.*
>
> *In 1959, he was appointed as the National Professor, the highest honour in the country for a scholar, a position he held for 15 years.*
>
> *Although several Nobel Prizes were awarded for research related to the concepts of the Boson, Bose–Einstein statistics and Bose–Einstein condensate, Bose himself was not awarded a Nobel Prize.*

Underlined Concepts & Terminologies

► Royal Society

- The President, Council and Fellows of the Royal Society of London for Improving Natural Knowledge, commonly known as the Royal Society, is a learned society, founded in November 1660.

- It was granted a royal charter by King Charles II as "The Royal Society". The Society is the United Kingdom's and Commonwealth of Nations' Academy of Sciences and fulfils a number of roles: promoting science and its benefits, recognising excellence in science, supporting outstanding science, providing scientific

advice for policy, fostering international and global co-operation, education and public engagement.

○ The current Royal Society President is Venkatraman Ramakrishnan, who took up the post on 30 November 2015. The Copley Medal is the oldest Royal Society medal still in use and is awarded for "outstanding achievements in research in any branch of science".

➤ Highest Civilian Awards of India:

○ **Bharat Ratna**

◆ The Bharat Ratna, the highest civilian award of the country, was instituted in the year 1954. Any person without distinction of race, occupation, position, or gender is eligible for this award.

◆ It is awarded in recognition of exceptional service/performance of the highest order in any field of human endeavour. On conferment of the award, the recipient receives a Sanad (certificate) signed by the President and a medallion.

○ **Padma awards**

◆ Padma Awards were instituted in the year 1954. Except for brief interruptions during the years 1977 to 1980 and 1993 to 1997, these awards have been announced every year on Republic Day.

◆ The award is given in three categories, viz. Padma Vibhushan, Padma Bhushan and Padma Shri, in the decreasing order of importance.

◆ Padma Vibhushan for "exceptional and distinguished service". Padma Vibhushan is second highest civilian award in India.

◆ Padma Bhushan for "distinguished service of a high order". Padma Bhushan is third highest civilian award in India .

◆ Padma Shri is awarded for "distinguished service". Padma Shri is last and fourth highest civilian award in India.

◆ The Padma award is just an honour. No cash allowance or any facility/benefit in terms of concession etc. in rail/air travel is attached to these awards.

◆ The award does not amount to a title and cannot be used as a suffix or prefix to the awardee's name on letterheads, invitation cards, posters, books etc.

➤ Higgs Boson:

○ The Higgs Boson is an elementary particle in the Standard Model of particle physics. First suspected to exist in the 1960s, it is the quantum excitation of the Higgs field, a fundamental field of crucial importance to particle physics theory.

➤ Bose-Einstein Condensate:

○ Bose–Einstein Condensate (BEC) is state of matter which exists when a dilute gas is made very cold, near absolute zero (in Kelvin).

○ It forms when the particles that make it up have very low energy. Only bosons can make a Bose–Einstein condensate, when they are close to 0 K (or −273 °C, or −459.67 °F). The gas has extremely low density, about one-hundred-thousandth the density of normal air.

○ A Bose–Einstein condensate is a change of state. When matter is in the BEC state it has zero viscosity. Superfluidity and superconductivity are both closely connected with the BEC state of matter.

★★★★★★★★★★

Snippets

➤ INS Arihant

◉ INS Arihant is India's first indigenously built nuclear armed submarine, commissioned by Navy Chief Admiral Lamba in August 2017.

◉ With INS Arihant, India joined the select group of countries which have a nuclear triad -- capable of delivering nuclear weapons by aircraft, ballistic missiles and submarine launched missiles.

◉ India becomes one of only six countries in the world with the knowledge of designing, engineering and operating a nuclear submarine.

◉ **Key Facts:**

   ◆ Its India's first indigenous nuclear submarine.

   ◆ The submarine is powered by a 83 MW pressurised light water reactor.

   ◆ It is designed to carry four nuclear-tipped submarine-launched ballistic missiles called the K-4, which have a range of 3,500 kilometre or a dozen Bo 5 missiles, which can strike targets about 700 kilometre away.

   ◆ It can launch nuclear weapons from underwater.

   ◆ The vessel was built under the Advanced Technology Vessel project at the Ship Building Centre in the port city of Visakhapatnam.

➤ INS Chakra

◉ INS Chakra was inducted into Navy with the name NERPA, and India entered the elite club of nations having nuclear-powered submarines.

◉ **Key Facts:**

   ◆ INS Chakra is a Russia-made, nuclear-propelled, hunter-killer submarine.

   ◆ Unlike conventional submarines that India operates which need to surface to charge their batteries often - sometimes as frequently as 24 hours - INS Chakra can stay under as long as it wants.

   ◆ Its an Akula Class submarine which will carry conventional weapons.

   ◆ It can go upto a depth of 600 metres.

   ◆ It is one of the quietest nuclear submarines around, with noise levels next to zero.

➤ Spike Anti - Tank Guided Missile

◉ Spike is an Israeli fourth generation man-portable fire-and-forget anti-tank guided missile and anti-personnel missile with a tandem-charge HEAT warhead, developed and designed by the Israeli company Rafael Advanced Defense Systems.

◉ Spike missile is equipped with an imaging infrared seeker. With this, the operator can obtain a target if it is not in the line of sight of the operator at launch, switch targets in flight, or compensate for the movement of the target if the missile is not tracking the target for some reason.

◉ Seeking to bolster the anti-tank arsenal of its infantry troops, the Indian Army is moving ahead with a proposal to buy Spike anti-tank guided missiles from Israel which will meet the urgent requirement of these missiles for the force.

➤ Navy MIG-29K

◉ A MiG 29K combat aircraft of the Indian Navy caught fire after it veered off the runway at Goa airport. It's a Russian-manufactured jet.

◉ The Mikoyan MiG-29K is a Russian all-weather carrier-based multirole fighter Aircraft developed by the Mikoyan Design Bureau.

◉ MiG-29K is equipped with multi-function radar and several new cockpit displays, the adoption of HOTAS (hands-on-throttle-and-stick) controls the integration of RVV-AE (also known as R-77) air-to-air missiles, along with missiles for anti-ship and anti-radar operations and several ground/strike precision-guided weapons.

◉ MiG-29K provides both airborne fleet air defence and surface attack capabilities.

◉ The MiG-29K entered operational service with India in February 2010.

○ In a 2016 report, India's national auditor CAG criticized the aircraft due to defects in engines, airframes and fly-by-wire systems.

► Akash missile

○ The Akash system is a medium-range surface-to-air missile with multi-target engagement capability carrying a 55 kgs multiple warhead capable of targeting 5 aircrafts simultaneously up to 25 kms.

○ It uses high-energy solid propellant for the booster and ram-rocket propulsion for the sustainer phase.

○ It is an all weather conditions and has a large operational envelope from a low altitude of 30 metres to a maximum of up to 20 kms.

› **(IGMDP) Integrated Guided Missile Development Programme**

› **IGMDP** was conceived by renowned scientist Dr. A P J Abdul Kalam to enable India attain self-sufficiency in the field of missile technology. The missiles developed under the programme were:--

› Short-range surface-to-surface ballistic missile Prithvi

› Intermediate-range surface-to-surface ballistic missile Agni

› Short-range low-level surface-to-air missile Trishul

› Medium-range surface-to-air missile Akash

› Third generation anti-tank missile Nag

► Parker Solar Probe

○ The sun is the source of the solar wind; a flow of gases from the sun that streams past Earth at speeds of more than 500 km per second (a million miles per hour).

○ Disturbances in the solar wind shake Earth's magnetic field and pump energy into the radiation belts. This "Space Weather" can change the orbits of satellites and shorten their lifetimes.

○ Thus NASA has send Parker Solar Probe to the sun in order to unlock the mysteries of the corona, and also to protect a society that is increasingly dependent on technology from the threats of space weather.

○ Parker Solar Probe has three detailed science objectives:

◆ Trace the flow of energy that heats and accelerates the solar corona and solar wind.

◆ Determine the structure and dynamics of the plasma and magnetic fields at the sources of the solar wind.

◆ Explore mechanisms that accelerate and transport energetic particles.

THE PARKER SOLAR PROBE MISSION

① LAUNCH DATE — Between July 31 and August 19, 2018 from Kennedy Space Centre in Florida

② ARRIVING AT SUN 2024

■ The spacecraft will fly through the sun's atmosphere to within 3.7 million miles – seven times closer than any spacecraft has come before

■ At its closest approach, it will hit 430,000 mph – travelling close to the distance from Nottingham to London (118 miles) every second

THE PROBE — Weight: 1,350lb, Length: 9ft 10in

High-gain antenna to transmit data via a radio signal

Electromagnetic wave antenna measures radio emissions of the sun and solar winds

Magnetometers will measure electric and magnetic fields, radio emissions and shock waves

Thermal shield to protect instruments is 8ft in diameter and made of 4.5in thick carbon-composite

Solar panels power the probe and retract when close to sun

SUN FACTS
■ The probe will experience temperatures of 1,400C. At its core the sun reaches 15million C
■ Average diameter: 864,000 miles, about 109 times the size of the Earth
■ Composition: Hydrogen, helium
■ Sunlight takes 8 minutes to reach Earth

A detector will gather solar wind particles

Chang'e 4 project

- China recently announced its plans to launch a lunar probe in 2018 to achieve the world's first soft landing on the far side of the moon to showcase its ambitious space programme. The mission is called Chang'e 4 project.

- Chang'e 4 is the fourth mission of the country's lunar mission series which is being named after the Chinese moon goddess.

- India's first lunar probe, Chandrayaan-1, has been found orbiting the moon eight years after it lost radio contact. Chandrayaan was India's first mission to the moon and was launched in 2008.

Hot Jupiter exoplanets

- Scientists have discovered four new 'Hot Jupiter' extrasolar planets orbiting dwarf stars. Objects of this type are similar in characteristics to Jupiter, with orbital periods of less than 10 days.

- The **orbital period** is the time a given astronomical object takes to complete one orbit around another object, and applies in astronomy usually to planets or asteroids orbiting the Sun, moons orbiting planets, exoplanets orbiting other stars, or binary stars.

- **An extrasolar planet,** also called an exoplanet, is a planet that orbits a star (i.e. is part of a solar system) other than our own. Our Solar System is only one among billions and many of them most likely have their own system of planets. As early as the sixteenth century, there have been astronomers who hypothesized of the existence of extrasolar planets.

- A **dwarf star** is a star of relatively small size and low luminosity. Most main sequence stars are dwarf stars.

WHO Okays Bharat Bio Typhoid Shot

- The World Health Organisation (WHO) has given its pre-qualification to Typbar Typhoid Conjugate Vaccine (TVC) developed by Hyderabad based Bharat Biotech for global use.

- **Typbar TCV** is world's first typhoid vaccine clinically proven to be administered to children from six months of age to adults, and confers long-term protection against typhoid fever.
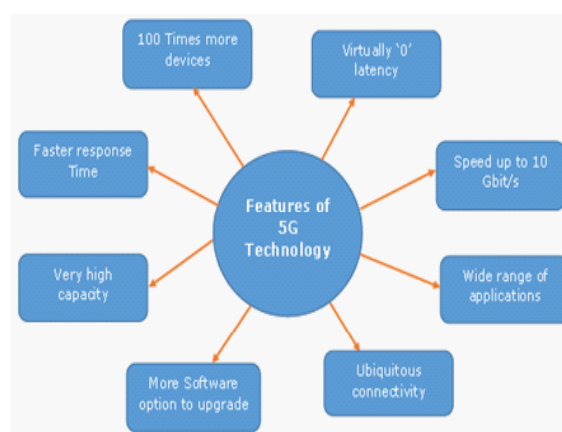
- A single dose offers 87% protective efficacy against typhoid, which sickened 12 million people and killed 130,000 worldwide in 2016.

- Though the vaccine is approved for use in India, it is not yet a part of India's Universal Immunisation Programme.

- **Typhoid feve**r is caused by food and water contaminated by Salmonella Typhi (S. Typhi) bacteria.

- WHO recommends the use of typhoid conjugate vaccines for use on children between the ages of 6 months and 23 months, and catch-up vaccinations for children between the ages of 2 years and 15 years.

- This vaccine will be a game changer because the unavailability of an effective vaccine for young children has been one of the major barriers in controlling of typhoid.

5G Technology to Boost Digital India

- The government has formed a high-level panel to evaluate and approve road maps and action plan to achieve the target of rolling out 5G technology in India by 2020.

- The Centre has created a support fund of about Rs.500 crore to facilitate research and development for 5G.

5G Technology

- 5G is the proposed next telecommunications standards beyond the current **4G/IMT-Advanced** standards.

- 5G research and development also aims at lower latency than 4G equipment and lower battery consumption, for better implementation of the **INTERNET OF THINGS.**

- 5G networks can increase download speeds up to 10 gigabits per second. This implies that

—

a full HD movie can be downloaded in a matter of seconds as opposed to a 4G network that can take more than an hour to do so.

◉ India is readying to implement the fifth generation, or 5G, networks, by 2020 in a bid to speed up its "Digital India" and "Make in India" initiatives and keep pace with "global technology adoption" where the younger generation is used to connected devices like smartphones, smartwatches, other smart wearables, Artificial Intelligence (AI)-powered devices and are looking forward to driving connected cars.

► **Economic benefits of 5G**

◉ The economic benefits from the 5G technology are also quite immense. As per the OECD (Organization for Economic Cooperation and Development) Committee on Digital Economic Policy, it has been stated that 5G technologies rollout will help in:

(1) Increasing GDP

(2) Creating Employment

(3) Digitizing the economy.

► **Nutrigenomics**

◉ Nutrigenomics is a branch of nutritional genomics and is the study of the effects of foods and food constituents on gene expression.

◉ This means that nutrigenomics is a research focusing on identifying and understanding molecular-level interaction between nutrients and other dietary bioactives with the genome.

◉ Obesity is one of the most widely studied topics in nutrigenomics. Due to genetic variations among individuals, each person could respond to diet differently. By exploring the interaction between dietary pattern and genetic factors, nutrigenomics aim to suggest prevention measures and/or treatment to obesity via personal nutrition.

◉ Nutrigenomics can be used to develop new, alternative treatments that target the altered cancer cell metabolism.

◉ Nutrigenomics in the field of anti ageing customize nutritional solutions in the form of supplements to meet the optimal nutrition required by the body to prevent aging of cells by the formation of excess free radicals.
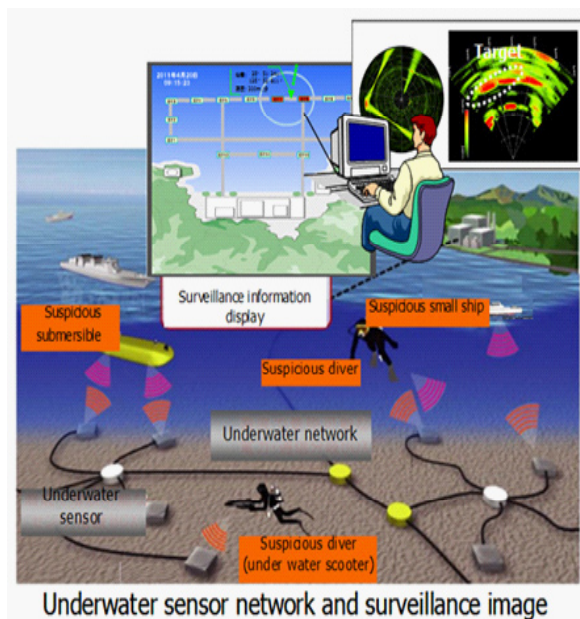
► **Probiotic Foods**

◉ Probiotics are live microorganisms that have health benefits when consumed. These are usually beneficial bacteria that serve some function in the body.

◉ They may improve digestive health, reduce depression and promote heart health. Some evidence even suggests that they may give better looking skin. Getting probiotics from supplements is popular, but you can also get them from foods that are prepared by bacterial fermentation (fermented foods). Eg: Yogurt, Butter Milk, Pickles.

► **China Develops Underwater Surveillance Network**

◉ China has developed a new underwater surveillance network to help its submarines get a stronger lock on targets while protecting the nation's interests along the maritime Silk route, which included the Indian Ocean.

◉ It is an underwater surveillance system that is based on a network of platforms — buoys, surface vessels, satellites and underwater gliders — that gather data from the South China Sea, and the Western Pacific and Indian Oceans.

◉ In recent years, China has stepped up naval expeditions to the Indian Ocean to fight the pirates in Gulf of Aden. China is also seeking to establish logistic bases in the Indian Ocean.

◉ The first such base was opened by China in Djibouti last year and it acquired the Hambantota port of Sri Lanka on 99 years lease for debt swap.

◉ It is also currently developing the Gwadar port in Pakistan as part of China-Pakistan Economic Corridor.

Underwater sensor network and surveillance image

➤ Fast Radio Bursts

◉ Fast radio bursts are intense bursts of radio emission that have durations of milliseconds and exhibit the characteristic dispersion sweep of radio pulsars.

◉ When the FRBs are polarized, it indicates that they are emitted from a source contained within an extremely powerful magnetic field. The origin of the FRBs has yet to be determined; proposals for its origin range from a rapidly rotating neutron star and a black hole to extraterrestrial intelligence.

◉ Fast radio bursts are bright, unresolved (pointsource-like), broadband (spanning a large range of radio frequencies), millisecond flashes found in parts of the sky outside the Milky Way.

◉ The burst usually appears as a single spike of energy without any change in its strength over time. The bursts last for a period of several milliseconds (thousandths of a second).

★★★★★★★★★★

Environment

1.
Label Mandatory For Food Certified as Organic

❝ *The Food Safety and Standards Authority of India (FSSAI) has issued regulations that required food companies selling organic produce to get certified with one of the two authorities —*

■ *National Programme for Organic Production (NPOP), or*

■ *Participatory Guarantee System for India (PGS-India).*

Importance of Labeling

■ *Labeling on the package of organic food shall convey full and accurate information on the organic status of the product. Such product may carry a certification or quality assurance mark of one of the systems mentioned in addition to the Food Safety and Standard Authority of India's organic logo.*

Grow healthy, eat healthy
A look at the status of organic farming, which is catching up in India

1.5 mh of cultivable land certified under National Programme for Organic Production in in 2015-16

1.35 mt tonnes certified organic products are produced in India. A fifth of the total produce was exported

• 5,85,200 farmers were engaged in organic farming in 2015, more than any other country and a quarter of the world

• Only 1.7% of India's cultivated area is under organic farming

What is an organic product?
Fruits, vegetables, fibre and animal products sourced or grown in an environment free of chemical pesticide, fertilizers, genetically-modified organisms and induced hormones

How can you identify an organic product?
There are special logos on packaging of foods that are used to identify foods as organic. The FSSAI had recently introduced 'Jiavik Bharat' logo

mh: Million hectare, mt:Million tonne

Previous Measures:

■ *To provide a focused and effective development of organic agriculture and quality products, the Ministry of Commerce and Industry (MCI), Government of India, launched the National Program on Organic Production (NPOP) in the year 2000.*

■ *NPOP was notified in October 2001 under the Foreign Trade & Development Act.*

■ *The NPOP is developed and implemented by MCI as the apex body, which established a National Steering Committee for the NPOP (NSCOP).*

■ ***Third party certification till now -*** *For nearly two decades, organic farming certification had been done through a process of third party certification under the NPOP. It was run by the Ministry of Commerce and was used for certifying general exports. Nearly 24 agencies were authorized by the NPOP to verify farms, storages and processing units and successful ones got a special 'India Organic' logo.*

CERTIFICATION CONFUSION

For any food to be sold as organic in India, whether fresh produce or packaged product, it must be certified via one of two systems. That road can be long, winding and often expensive.

NATIONAL PROGRAMME FOR ORGANIC PRODUCTION (NPOP)

Adopted in 2001 and administered by the Ministry of Commerce & Industry, it was originally meant for exports.

Under this programme, one of 28 third-party certifiers must check that a farm is free of manufactured chemicals (fertilisers, insecticides, herbicides, hormones and pesticides).

In case of processed food, the certifier checks that the produce came from an NPOP-certified farm and was processed by a NPOP-certified processor.

Certified foods carry the India Organic logo. The standards are recognised by the European Commission, America's USDA, and Switzerland.

THE CATCH

■ **Third-party certification** is expensive and must be renewed annually.

■ **So the programme** is restricted to big companies, ones that work with farmers over thousands of acres, and earn revenues largely from exporting non-perishables – oilseeds, processed foods, cereals, tea, spices and pulses.

PARTICIPATORY GUARANTEE SYSTEM FOR INDIA (PGS-INDIA)

Practised in 38 countries and recognised by the Union Ministry of Agriculture and Farmers Welfare since 2015, it certifies clusters of small farmers (two and five acres each).

Five or more growers who live close to each other form a group and get trained in organic farming under a government scheme.

Then, with help from Regional Councils (India now has 562), farmers inspect each other's holdings. Should a grower violate any norms, their produce is not sold through the group.

India now has 6,646 PGS groups, covering about 2.1 lakh farmers.

THE CATCH

■ **The system is poorly funded,** farmers are often trained badly and the system does little to create a long-term market for organic produce.

■ **The PGS is not recognised** by the US and European Union, two big markets for organic food. So small farmers still cannot sell their produce abroad.

■ **They can't sell** their food to NPOP-certified processors either. This means they often have little incentive to stay organic.

■ *The PGS-India programme, in contrast, had been around for only two years and — unlike the top-down approach of the NPOP — involves a peer-review approach. Here, farmers played a role in certifying whether the farms in their vicinity adhered to organic-cultivation practices. This programme was implemented by the Ministry of Agriculture through the National Centre of Organic Farming.* 🙶

Underlined Concepts

➤ **What is the difference between Organic and Non-Organic foods?**

Organic or Natural? What's the difference?

INGREDIENT/PROCESSING	ORGANIC	NATURAL	CONVENTIONAL
Artificial flavors	NEVER	No	May be used
Artificial colors	NEVER	No	May be used
Artificial preservatives	NEVER	No	May be used
Artificial fertilizers	NEVER	May be used	May be used
Artificial pesticides	NEVER	May be used	May be used
Irradiation	NEVER	May be used	May be used
Genetically Engineered Ingredients	NEVER	May be used	May be used

➤ **National Programme for Organic Production (NPOP)**

Implementation of the National Programme for Organic Production (NPOP)

- To provide a focused and well directed development of organic agriculture and quality products, Ministry of Commerce and Industry, Government of India, launched the National Program on Organic Production (NPOP) in the year 2000, which was formally notified in October 2001 under the Foreign Trade & Development Act (FTDR Act).

- NPOP provides information on standards for organic production, systems, criteria, and procedures for accreditation of Inspection and Certification bodies, the national organic logo and the regulations governing its use.

- The standards and procedures have been formulated in harmony with international standards such as those of Codex and IFOAM.

- NPOP is implemented under AGMARK by Ministry of Agriculture for the domestic market (voluntary).

2.
CAMPA

> *The Compensatory Afforestation Fund Management and Planning Authority (CAMPA) was envisaged as an independent body that would manage a corpus — collected from industries that have used forest land for projects — that accumulates around Rs.6,000 crore annually and is already worth around Rs.42,000 crore.*
>
> *These funds are meant to be used by states to implement agro-forestry in non-forest land to compensate for felled forest.*
>
> ### CAMPA fund disbursement
>
> *Currently, states are able to access CAMPA funds through an "ad hoc" mechanism whereby the Centre disburses it on a needs-basis. Funds collected under CAMPA directly go into the Public Account and from there on to the states.*
>
> *But according to the finance ministry power to disburse the funds should be with the CAMPA, however it should be routed through the Consolidated Fund of India (CFI). The CFI is the repository of government revenues and taxes and all funds channeled through it require Parliamentary approval.*

Underlined Concepts

➤ Compensatory Afforestation

- Compensatory Afforestation (CA) refers to afforestation and regeneration activities carried out as a way of compensating for forest land diverted to non-forest purposes.

- As per the Forest (Conservation) Act 1980, whenever forest land is to be diverted for non-forestry purpose usually the conditions relating to transfer, mutation and declaration as Reserve Forest/ Protected Forest the equivalent non forest land for compensatory afforestation and funds for raising compensatory afforestation etc are to be imposed.

- For mining purposes additional conditions like maintaining a safety zone area, fencing and regeneration etc and for major and medium irrigation projects, catchment area treatment plans are to be stipulated.

- According to it as far as possible, the non-forest land for Compensatory Afforestation

(CA) was to be identified contiguous to or in the proximity of Reserved Forest or Protected Forest.

➤ Compensatory Afforestation Fund Act

- The CAF Act, 2016 has the provision for creating a national fund with contributions from user agencies—any person, organisation, company or department of the Central Government or state government making a request for diversion or de-notification of forest land for non-forest purpose under the Public Account of each state.

- According to the Act, the fund will be used for "compensatory afforestation, additional compensatory afforestation, penal compensatory afforestation, net present value, catchment area treatment plan or any money for compliance of conditions stipulated by the Central Government while according

approval under the provisions of the Forest (Conservation) Act, 1980.

- Availability of these amounts will not only help the States/UTs and local communities to ensure better management of their forest resources but will also result in creation of more than 15 crores man-days of direct employment.

- But due to issue in funding between the environment ministry and the finance ministry fund has not been established yet.

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Snippets

Snippets related to ENVIRONMENT

A. Chilika Lake sees a Marginal Drop of Birds

- Bird population at the scenic Chilika Lake has recorded a marginal drop from 9.4 lakh birds in 2017 to 8.9 lakh this winter.

- Migratory birds fly across continents from the Caspian Sea, the Baikal Lake and remote parts of Russia, Mongolia and Siberia and come to marshy lands of the Nalabana Bird Sanctuary inside the Chilika Lake which is spread across over 1,000 sq km.

- They find adequate preys in shape of small fishes and insects in the mudflats.

- *Facts - Chilka lake*
    - It is Asia's largest brackish water lagoon.
    - It lies in Odisha state on the eastern coast of India, at the mouth of the Daya River flowing into the Bay of Bengal.
    - Because of its rich bio-diversity and socio-economic importance, Chilika was designated as a Ramsar site in 1981 to afford better protection.
    - It is the largest wintering ground for migratory birds on the Indian sub-continent.
    - Rambha sector in the Chilika Lake is the ideal sector for dolphins to play, flock and mate because of the stillness of the water in the bay area.
    - Chilika, known for its exquisite natural beauty, attracts many tourists because of its dolphin population.

B. Coal dust

- Coal dust is a fine powdered form of coal. Grinding coal to dust before combustion improves the speed and efficiency of burning and makes the coal easier to handle.

- For use in thermal power plants, coal is ground into dust using a device called a powdered coal mill. The resulting product, called powdered coal or pulverized coal, is then generally used in a fossil fuel power plant for electricity generation.

- Pulverised coal is a significant dust explosion hazard, as large quantities are suspended in air for transfer from the mill to the power plant.

- Coal workers' pneumoconiosis, or black lung disease, is caused by inhaling coal dust, typically dust produced in coal mining.

C. Tiger Deaths in India

- India recorded 98 tiger deaths and 17 cases of seized bones, skins, and claws, resulting in an estimated total loss of 115 tigers in 2017 -According to data for the year from Tigernet, the official database of India's National Tiger Conservation Authority

- *Facts*
    - There are 50 tiger reserves in India which are governed by Project Tiger.
    - Karnataka has the highest number of tiger population.
    - Madhya Pradesh recorded the highest number of casualties.

- *Project Tiger*
    - Aims to foster an exclusive tiger agenda in the core areas of tiger reserves, with an inclusive people oriented agenda in the buffer.
    - It was launched in 1973.
    - It is a Centrally Sponsored Scheme of the Ministry of Environment, Forests and Climate Change providing central assistance to the tiger States for tiger conservation in designated tiger reserves.
    - The National Tiger Conservation Authority(NTCA) was established in December 2005 following a recommendation of the Tiger Task Force.
    - The Wildlife Protection Act of 1972 was amended to provide for constituting the National Tiger Conservation Authority responsible for implementation of the Project Tiger plan to protect endangered tigers.

- *Global Tiger Forum (GTF)*
    - An inter-governmental organization dedicated to tiger conservation. It was a

result of Delhi Declaration and was adopted in the year 1993.

◆ India is a member of GTF.

D. Red Sanders

◎ Red Sanders is an endangered species found naturally only in four districts of Andhra Pradesh. However, it is also found in wild in some adjacent districts of Tamil Nadu and Karnataka.

◎ The tree growth is extremely slow and takes decades to gain thickness. The deep red-coloured wood is sturdy and does not lose shape even in harsh temperatures and humidity.

◎ It is easy to carve and a tonne of the wood fetches between Rs. 20 lakh to 40 lakh in the international market.

◎ Red Sanders is in huge demand in countries like China and Japan, where it is used in making musical instruments, sculpture, furniture and medicines.

◎ As per the estimates of Andhra Pradesh forest department, 3,000 tonnes of Red Sanders is illegally removed from its forests every year.

◎ Exporting Red Sanders requires permission from the Convention on International Trade in Endangered Species of wild fauna and flora (CITES), a binding treaty between 179 countries to control trade of exotic wildlife species.

◎ India is a signatory to CITES. CITES had banned the export of Red Sanders from India in June 2010 citing irregularities in certification of products being exported and India's failure to conduct Non-Detriment Finding (NDF), a study to establish conservation status of the species and the impact of trade on it. Recommendation to carry out NDF was made by CITES in 2007.

◎ Red Sanders is smuggled from India mainly to China, Japan, UAE, Malaysia and Singapore. Smuggling to China is mostly done by road via Nepal, and to Malaysia and Singapore from the Chennai port. For UAE, the Mumbai port acts as the transit point. Smuggling to Japan and China also takes place from Manipur and Mizoram.

E. Annual crocodile census

◎ The population of saltwater crocodiles in Bhittarkanika National Park and its nearby areas

has registered a marginal rise this year with the annual reptile census putting the head count at 1698. Last year, as many as 1682 saltwater crocodiles were sighted in the park.

◎ *Bhitarkanika National Park*

◆ Its a national park located in Kendrapara district of Odisha in eastern India. It spreads over 672 (259 sq mi) and is surrounded by the Bhitarkanika Wildlife Sanctuary.

◆ Gahirmatha Beach and Marine Sanctuary lies to the east, and separates swamp region cover with canopy of mangroves from the Bay of Bengal.

◆ The national park is home to Saltwater crocodile, White Crocodile, Indian python, King cobra, Black Ibis, Darters and many other species of flora and fauna. It hosts a large number of mangrove species, and is the second largest mangrove ecosystem in India.

◆ The national park and wildlife sanctuary is inundated by the rivers Brahmani, Baitarni, Dhamra, Pathsala.

F. Green sea turtles

◎ The green turtle is a large, weighty sea turtle with a wide, smooth carapace, or shell. It inhabits tropical and subtropical coastal waters around the world and has been observed clambering onto land to sunbathe.

◎ Unlike most sea turtles, adult green turtles are herbivorous, feeding on sea grasses and algae. Juvenile green turtles, however, also eat invertebrates like crabs, jellyfish, and sponges.

◎ Up to 99% of endangered green sea turtles born on Australia's east coast are female, which poses a grave threat to the long-term survival of the species.

◎ The main cause is increasing temperatures. Green sea turtles don't develop into males or females based on sex chromosomes - rather, it's the temperature outside of the egg that determines the gender of the embryo.

◎ If temperatures continue to rise, some turtle populations are at risk of becoming "completely feminized," which could, in turn, wipe out the population over the course of a few decades.

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Indian Culture and History

1.

Koregaon Issue

" Dalits from all walks of life were in Bhima Koregaon, about 40 kms from Pune city, to commemorate a 200 year old battle in which the Dalit-dominated British army defeated Peshwas in Maharashtra.

Protests and violence gripped Maharashtra on 1 January 2018, after activists attacked people gathered at Bhima Koregaon.

The agitation that followed the violence led to local train services in parts of Mumbai being shut down. Maharashtra Chief Minister Fadnavis has assured an inquiry into the violence and the death. "

Underlined Concepts

➤ About Battle of Koregaon

- ◉ The Battle of Koregaon was fought on 1 January, 1818, between the British East India Company including Mahars and the Peshwa faction of the Maratha Confederacy, at Koregaon Bhima.

- ◉ The Koregaon Ranstambh (victory pillar) is an obelisk in Bhima-Koregaon village commemorating the British East India Company soldiers who fell in a battle on January 1, 1818, where the British, with just 834 infantrymen — about 500 of them from the Mahar community — and 12 officers defeated the 28,000-strong army of Peshwa Bajirao II. It was one of the last battles of the Third Anglo-Maratha War, which ended the Peshwa domination.

- ◉ The soldiers of the East India Company successfully fought the Peshwa troops, preventing them from advancing into Pune. After a 12-hour-long battle, the loss of 600 men, and fearing reinforcements from Pune, Baji Rao II withdrew his troops from Koregaon and gave up his efforts to attack Pune.

- ◉ The battle is considered by many prominent Dalit thinkers, activists, and writers to be a significant point in Dalit history as a triumph for the community which had faced oppression under Peshwa rule.

➤ About Mahars

- ◉ The Mahars were considered untouchable in the contemporary caste-based society. The Peshwas, who were high-caste Brahmins, were notorious for their mistreatment and persecution of the untouchables. Because of this, the Dalits (former untouchables), after independence, saw the Koregaon obelisk as a symbol of their victory over the

high-caste oppression. The Dalit leader B. R. Ambedkar visited the site on 1 January, 1927. To commemorate his visit to the site, now

thousands of his followers visit the site every New Year's Day.

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2.
Recent Geographical Indications

❝ *Nilambur Teak*

The Nilambur teak aka Malabar teak has found its place in the Geographical Indications (GI) Registry. The golden brown teak is known for its log dimensions, desired wood figure and wide reputation in the world of trade.

The state government need to protect and conserve the unique teak variety of Kerala which had reportedly found a place in the construction of the Buckingham Palace, the Kabba building in Mecca, the legendary Titanic and even in the interior of Rolls Royce cars.

Kandhamal Turmeric

Kandhamal turmeric has been famous for being organically cultivated without use of chemical fertilisers and pesticides which is why it has a demand in foreign countries. It is produced in Orissa. **❞**

Underlined Concepts

▶ **About Geographical Indication**

- ⊙ A geographical indication (GI) is a name or sign used on products which corresponds to a specific geographical location or origin (e.g. a town, region, or country). The use of a geographical indication may act as a certification that the product possesses certain qualities, is made according to traditional methods, or enjoys a certain reputation, due to its geographical origin.

- ⊙ Geographical indications are generally traditional products, produced by rural

communities over generations, that have gained a reputation on the markets for their specific qualities.

- ⊙ India, as a member of the World Trade Organization (WTO), enacted the Geographical Indications of Goods (Registration & Protection)Act, 1999 which has come into force with effect from 15th September, 2003.

- ⊙ Darjeeling Tea was the first Indian product to get the geographical indication tag.

- A geographical indication right enables those who have the right to use the indication to prevent its use by a third party whose product does not conform to the applicable standards.

- However, a protected geographical indication does not enable the holder to prevent someone from making a product using the same techniques as those set out in the standards for that indication.

➤ What is Intellectual Property?

- Intellectual property (IP) refers to creations of the mind, such as inventions; literary and artistic works; designs; and symbols, names and images used in commerce.

- IP is protected in law by, for example, patents, copyright and trademarks, which enable people to earn recognition or financial benefit from what they invent or create.

➤ Types of IP

- Copyright is a legal term used to describe the rights that creators have over their literary and artistic works. Works covered by copyright range from books, music, paintings, sculpture and films, to computer programs, databases, advertisements, maps and technical drawings.

- A patent is an exclusive right granted for an invention. Generally speaking, a patent provides the patent owner with the right to decide how - or whether - the invention can be used by others. In exchange for this right, the patent owner makes technical information about the invention publicly available in the published patent document.

- A trademark is a sign capable of distinguishing the goods or services of one enterprise from those of other enterprises. Trademarks date back to ancient times when artisans used to put their signature or "mark" on their products.

- An industrial design constitutes the ornamental or aesthetic aspect of an article. A design may consist of three-dimensional features, such as the shape or surface of an article, or of two-dimensional features, such as patterns, lines or color.

- Geographical indications and appellations of origin are signs used on goods that have a specific geographical origin and possess qualities, a reputation or characteristics that are essentially attributable to that place of origin. Most commonly, a geographical indication includes the name of the place of origin of the goods.

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Snippets

Snippets related to ART AND CULTURE

A. Sabarimala temple to be renamed

- Travancore Devaswom Board (TDB) will consider a proposal to rename Sabarimala Ayyappa Swami Temple as Sabarimala Sri Dharma Sastha Temple.

- Sabarimala is a Hindu pilgrimage centre located at the Periyar Tiger Reserve in the Western Ghat mountain ranges of Pathanamthitta District, Perunad grama panchayat in Kerala.

- The shrine at Sabarimala is an ancient temple of Ayyappan also known as Sasta and Dharmasasta.

- In the 12th century, Manikandan, a prince of Pandalam dynasty, meditated at Sabarimala temple and became one with the divine. Manikandan was an avatar of Ayyappan.

- TDB aims to go back to the original name of the temple which was changed by the previous board led by Congress leader Prayar Gopalakrishnan.

B. Maha bodhi temple

- The Mahabodhi Temple mean "Great Awakening Temple, a UNESCO World Heritage Site, is an ancient, but much rebuilt and restored, Buddhist temple in Bodh Gaya (in Gaya district)-Patna, Bihar state, India.

- It is one of the four holy sites related to the life of the Lord Buddha, and particularly to the attainment of Enlightenment.

- The first temple was built by Emperor Asoka in the 3rd century B.C., and the present temple dates from the 5th or 6th centuries. It is one of the earliest Buddhist temples built entirely in brick, still standing in India, from the late Gupta period.

- Built by emperor Ashoka in 260 BC, the Mahabodhi temple complex is one of the first Buddhist temples to be built entirely on brick.

- Places associated with Buddhism are: Lumbini, Bodhgaya, Sarnath and Kushinagara and four other sites viz. Sravasti, Sankasya, Rajgir and Vaishali.

Symbols of 5 great events of Buddha's Life:

➤ **Buddha's Birth:** Lotus & Bull.

➤ **The Great Departure (Mahabhinishkramana):** Horse.

➤ **Enlightment (Nirvana):** Bodhi Tree.

➤ **First Sermon (Dhammachakraparivartan):** Wheel.

➤ **Death (Parinirvana):** Stupa.

C. Dhanu Yatra

- Odisha is considered as the land of colourful fairs and festivals. There are 13 festivals in 12 months of a year.

- In this plethora of festivals, Dhanu Yatra of Bargarh in Odisha is remarkably distinguished from rest in sense, style, grace and grandeur. It also happens to be a great mass festival.

- Every year in the month of Sagittarius, it is celebrated for eleven days of the month from the 5th day of the bright fortnight till the full moon day.

- It is believed to have started after harvesting season of 1947-48 soon after India's independence as a reflection of joyous atmosphere in the society due to the end of British misrule. Since then it has become more popular all over the world with every passing year.

- During the Dhanu Yatra, Bargarh city, about 330-km from Bhubaneswar, becomes Mathura, the river Jeera becomes river Yamuna and Ambapalli situated on the other side of Jeera becomes Gopapura. For all the eleven days, Bargarh city is transformed into a very big stage.

D. Dastakari Haat craft

- The 32nd edition of the Annual Dastkari Haat Crafts Bazaar is organized at Dilli Haat, INA Delhi during 1-15 January, 2018.

- Dastkari Haat has been pursuing the cause of Indian traditional crafts and textiles under the able guidance of crafts revivalist Jaya Jaitley.

- This year Israel is the partner country for the 15-day-long festival at Delhi Haat. Five artists from Israel are creating artworks in collaboration with their Indian counterparts in five categories of handicrafts — paper-mache, wire, patch work, felt and embroidery.

- Dastkari Haat will offer a glimpse of the creative processes, unlike other crafts fairs where ready made products are available for sale.

- Dastkari Haat Samiti works under Ministry of External Affairs.

E. Dhaatu International Puppet Festival

- Dhaatu International Puppet Festival is an annual festival with nearly 150 artists and scholars participating from India, Asia and Europe. It has both seminars and performances.

- Dhaatu is a not for profit organization working towards nurturing and promoting the traditional puppet art forms of India.

- Dhaatu was founded in 2004 with the aim of bringing India's great Treasure trove of stories from historical epics like the Ramayana and the Mahabharata, from literary masterpieces of poetic greats such as Kalidasa, as well as stories from the Panchatantra and the many stories of India's great sages, Kings and Thinkers.

- Dhaatu specializes in the use of ancient and vanishing art-forms of doll keeping and puppetry to tell stories. Members of Dhaatu are experienced performing artists in the field of tradition Puppetry and classical dance and music in addition to being philosophers and writers. Dhaatu was founded in order to share the Indian way of life with the younger generation.

F. Bhartendu Harishchandra

- Bhartendu Harishchandra (9 September 1850 – 6 January 1885) is known as the father of modern Hindi literature as well as Hindi theatre.

- He is considered as one of the greatest Hindi writers of modern India. He was a trendsetter in Hindi prose-writing. He was an author of several dramas, life sketches and travel accounts.

- He used new media like reports, publications, letters from the editor, translations and literary works to shape public opinion.

- Writing under the pen name "Rasa", Harishchandra represented the agonies of the people, country's poverty, dependency, inhuman exploitation, the unrest of the middle class and the urge for the progress of the country. He was an influential Hindu "traditionalist", using Vaishnava devotionalism to define a coherent Hindu religion.

G. Medaram's Sammakka-Sarakka/ Saralamma Jatara

- Central government is likely to declare Medaram's Sammakka-Sarakka/Saralamma Jatara a national festival this year.

- Sammakka-Sarakka Jatara festival is held by forest dwelling Koya tribe of Telangana and surrounding States and is the biggest Tribal festival in Asia which is attended by one crore people on an average. It is held bi-annually in Jayashankar Bhupalpally district to honour the twin goddesses Sammakka and her daughter Sarakka.

- In 2018, the four-day Jatara, is scheduled to begin on January 31, and is expected to have a footfall of 1.20 crore persons.

- Once declared a national festival, Jatara can be considered for 'intangible cultural heritage of humanity' tag of United Nations Educational, Scientific and Cultural Organisation (UNESCO). UNESCO had also given the tag to Kumbh Mela, which is world's biggest festival which sees participation by up to 10 crore persons.

- Union Ministry of Tribal Affairs released Rs.2 crore as Centre's contribution towards

conducting the massive event. Union government had in 2015 declared Vanaj, a tribal dance and music festival, as national festival.

H. New Emblem of West Bengal Government

- West Bengal government unveiled the official emblem of the state government. The logo highlights the Ashoka emblem on the top with the theme of "Biswa Bangla" at the centre.

- The emblem will be used in all the official documents and work of the State government after issuing notification.

> The use of the state emblem of India, as the official seal of the Government of India, is regulated by the State of India (Prohibition of Improper Use) Act, 2005.
>
> No individual or private organisation is permitted to use the emblem for official correspondence.

I. Brahmagupta II

- Brahmagupta was an Indian mathematician and astronomer.

- Brahmagupta wrote many textbooks for mathematics and astronomy which include 'Durkeamynarda', 'Khandakhadyaka', 'Brahmasphutasiddhanta' and 'Cadamakela'.

- **Contributions**

  - 'Brahmasphutasiddhanta' contains rules of arithmetic which is part of the mathematical solutions.

  - The book also consisted of many geometrical theories like the 'Pythagorean Theorem' for a right angle triangle. Brahmagupta was the one to give the area of a triangle and the important rules of trigonometry such as values of the sin function.

  - He introduced the formula for cyclic quadrilaterals. He also gave the value of 'Pi' as square root ten to be accurate and 3 as the practical value.

  - Additionally he introduced the concept of negative numbers.

  - Brahmagupta argued that the Earth and the universe are round and not flat. He was the first to use mathematics to predict the positions of the planets, the timings of the lunar and solar eclipses.

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International News

1.
Marijuana Legalized in California

" California becomes the US largest state to offer legal recreational marijuana sales. California is the sixth state to introduce the sale of recreational marijuana, after Colorado, Washington, Oregon, Alaska and Nevada.

Medical marijuana has been legal in California for more than two decades but the arrival of full legalization in the state is a milestone for the nation's fast-growing cannabis industry. "

Underlined Concepts and terminologies

▶ **Marijuana**

- ◉ **Cannabis,** also known as **marijuana** among other names,is a psychoactive drug from the Cannabis plant intended for medical or recreational use.

- ◉ Marijuana, when sold, is a mixture of dried out leaves, stems, flowers and seeds of the hemp plant. It is usually green, brown or gray in color.

- ◉ Hashish is tan, brown or black resin that is dried and pressed into bars, sticks or balls. When smoked, both marijuana and hashish give off a distinctive, sweet odor.

- ◉ The chemical that causes intoxication or the "high" in users is called THC (short for tetrahydrocannabinol). THC creates the mind-altering effects that classifies marijuana as a "drug."

- ◉ As for the medical uses of marijuana, it contains another chemical called CBD (short

for cannibidiol). This is the substance most often associated with creating medical benefits.

▶ **Negative impact of Marijuana**

- ◉ The immediate sensations—increased heart rate, lessened coordination and balance, and a "dreamy," unreal state of mind—peak within the first 30 minutes. These short term effects usually wear off in two to three hours, but they could last longer, depending on how much the user takes, the potency of THC and the presence of other drugs added into the mix.

- ◉ As the typical user inhales more smoke and holds it longer than he would with a cigarette, a joint creates a severe impact on the lungs. Aside from the discomfort that goes with sore throats and chest colds, it has been found that smoking one joint gives as much exposure to cancer-producing chemicals as smoking four to five cigarettes.

○ The mental consequences of marijuana use are equally severe. Marijuana smokers have poorer memories and mental aptitude than do non-users.

➤ Status in India

○ In Odisha, cannabis consumption is legal, and it is common to see people smoking chillums

○ Even in Assam, where bhang has been explicitly banned since 1958, it is consumed by thousands during the Ambubachi Mela.

○ In November 2015, Uttarakhand legalized the cultivation of cannabis for industrial purposes.

○ The government of India issued the first-ever license to grow medicinal cannabis for research purposes. The official license-holder is the Council of Scientific and Medical Research (CSIR). The council will work in collaboration with a Mumbai-based firm, the Bombay Hemp Company (BOHECO).

★★★★★★★★★★

2.
Making Hindi Official Language in UN

"" *India is bringing forward its proposal to include Hindi as one of the official languages of the United Nations[UN]. The ministry of external affairs is currently reviewing a draft advocacy paper to present the Indian case with regard to introducing Hindi in the UN.*

The Ministry of External Affairs has set up the World Hindi Secretariat in Mauritius. It has prepared Hindi-Chinese, Hindi-Arabic, Hindi-French, and Hindi-Spanish dictionaries to promote Hindi. A consolidated Hindi-based dictionary of UN languages is also under compilation. ""
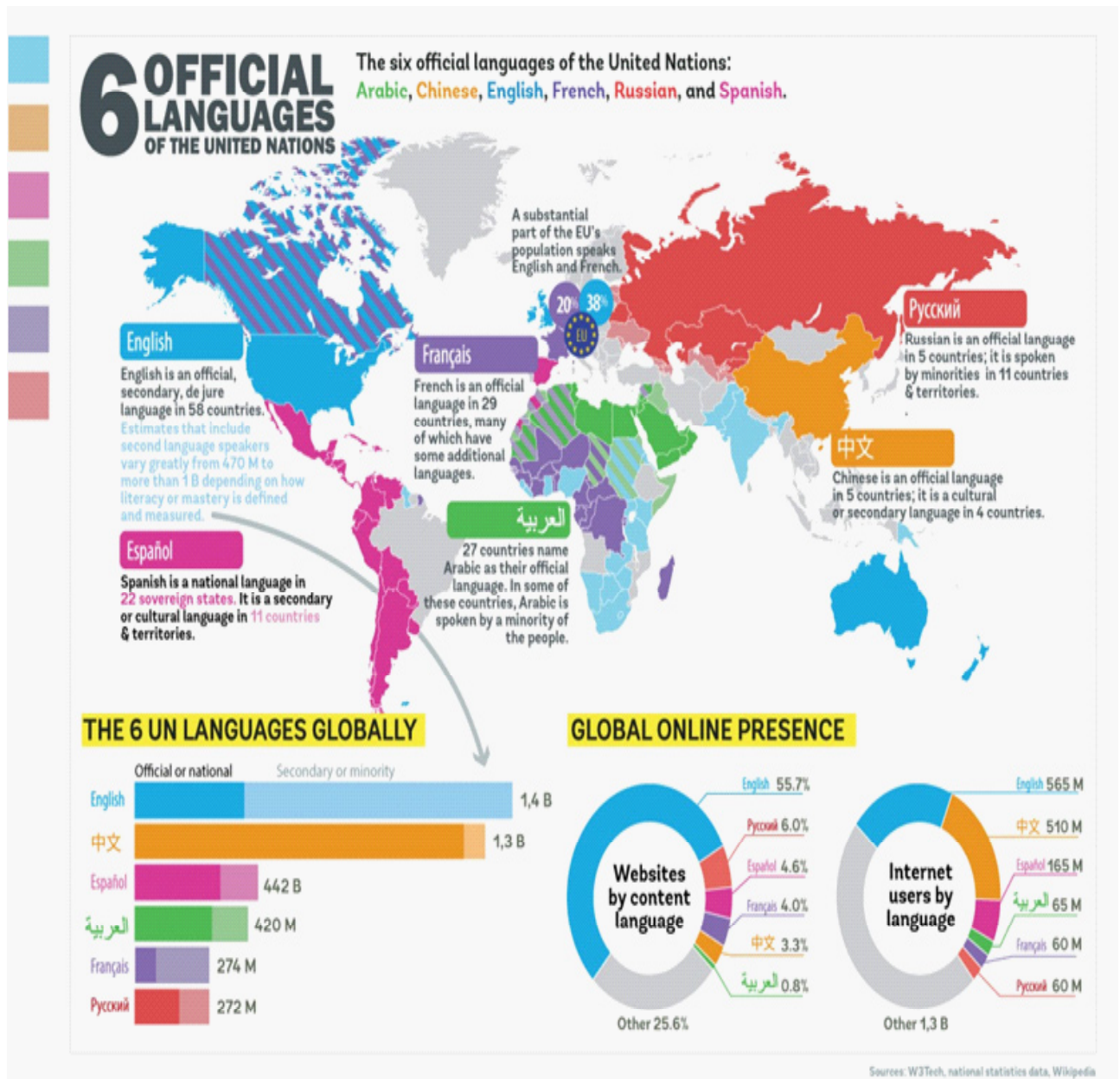

Underlined Concepts and terminologies

➤ Procedure for a language to be recognised as an official language of the UN:

○ According to that procedure, getting Hindi accepted as an official language of the UN will involve adoption of a Resolution by the UN General Assembly with a minimum two-third majority, as the additional expenditure; according to UN rules have to be contributed by all member-states.

○ Therefore, according to the UN rules, support of two-third member-countries (129 nations) is required out of the total 193 member-nations.

○ The additional expenditure, according to UN rules, has to be contributed by all member states.

○ In case of including Hindi as an official language, there would be additional cost for providing infrastructure/equipment and space

for additional interpreters. Expenditure incurred towards introduction of a new official language is borne by Member States based on the scale of assessment.

➤ **Official Languages in The United Nations:**

6 OFFICIAL LANGUAGES OF THE UNITED NATIONS

The six official languages of the United Nations: Arabic, Chinese, English, French, Russian, and Spanish.

➤ **Need:**

- Along with India there are countries like Nepal South Africa, Mauritius, the United Kingdom, the United States, Yemen, and Uganda where a significant number people speak Hindi. In addition,this can work to present INDIA'S soft power.It will also bring Multilingualism to UN.

➤ **Status of Hindi Language:**

- Hindi is spoken in India, Fiji, Mauritius, Suriname, Guyana, Trinidad & Tobago and Nepal.

- It has more than 550 million speakers in India alone, of whom 422 million are native, 98.2 million are second language speakers, and 31.2 million are third language speakers.

- Hindi is the lingua franca of the majority of North Indians with its importance as a global language increasing day by day.

- Hindi is the fourth most-spoken first language in the world, after Mandarin, Spanish and English.

- The World Hindi Secretariat is headquartered in Mauritius and the organization seeks to promote Hindi as an international language.

- Hindi Divas is an annual day in India on the promotion of Hindi in India.

- United Nations broadcasting its programmes on the UN Radio website in Hindi language also.

➤ **Majority spoken languages across the globe:**

★★★★★★★★★★★

Snippets

Snippets on INTERNATIONAL NEWS

A. INTERPOL

- Interpol is the world's largest international police organization, with 184 member countries. It is Created in 1923 by International Criminal Police Commission

- It facilitates cross-border police co-operation, and supports and assists all organizations, authorities and services whose mission is to prevent or combat international crime.

- Interpol aims to facilitate international police co-operation even where diplomatic relations do not exist between particular countries.

- Action is taken within the limits of existing laws in different countries and in the spirit of the Universal Declaration of Human Rights.

- Interpol's constitution prohibits 'any intervention activities of a political, military, religious or racial character.'

- India is a Member Country of Interpol

- Head Quarters - Lyon,France

- **Red corner notices**

  - A `Red-corner notice' is an arrest warrant circulated by Interpol on behalf of the government of a particular country.

  - It is a request from one country to another to arrest and deport the wanted individual. In the old days, we had `wanted' posters.

  - There are eight types of notices, seven of which are colour-coded by their function: Red, Blue, Green, Yellow, Black, Orange, and Purple. An eighth Special Notice is issued at the request of the United Nations Security Council.

Notice type	Details
Red Notice	To seek the location and arrest of a person wanted by a judicial jurisdiction or an international tribunal with a view to his/her extradition.
Blue Notice	To locate, identify or obtain information on a person of interest in a criminal investigation.
Green Notice	To warn about a person's criminal activities if that person is considered to be a possible threat to public safety.
Yellow Notice	To locate a missing person or to identify a person unable to identify himself/herself.
Black Notice	To seek information on unidentified bodies.
Orange Notice	To warn of an event, a person, an object or a process representing an imminent threat and danger to persons or property.
Purple Notice	To provide information on modi operandi, procedures, objects, devices or hiding places used by criminals.
Interpol-United Nations Security Council Special Notice	To inform Interpol's members that an individual or an entity is subject to UN sanctions.

B. "Countries of Particular Concern"

◉ Country of Particular Concern (CPC) is a designation of a nation, guilty of severe violations of religious freedom under the International Religious Freedom Act (IRFA) of 1998 and its amendment of 1999.

◉ This designation is assigned by the United States.

◉ The term "severe violations of religious freedom" means systematic, ongoing, egregious violations of religious freedom, including violations such as:

♦ Torture or cruel, inhuman, or degrading treatment or punishment;

♦ Prolonged detention without charges;

♦ Causing the disappearance of persons by the abduction or clandestine detention of those persons; or

♦ Other flagrant denials of the right to life, liberty, or the security of persons. Nations so designated are subject to further actions, including economic sanctions, by the United States.

◉ The countries are: Burma, China, Eritrea, Iran, North Korea, Sudan, Saudi Arabia, Tajikistan, Turkmenistan, and Uzbekistan. The Sate Department also placed Pakistan on a Special Watch List-- a new category created by 2016 amendments to the International Religious Freedom Act. This category is for countries with severe violations of religious freedom.

C. ASEAN India Pravasi Bharatiya Divas

◉ The 2018 ASEAN-India Pravasi Bharatiya Divas(PBD) held in Singapore on 6-7 January, 2018 to celebrate the 25 years of strategic partnership between India and ASEAN.

◉ The theme of the 2018 PBD Convention is "Ancient Route, New Journey: Diaspora in the Dynamic India-ASEAN Partnership".

◉ The 2-day event featured discussions on a broad range of issues with outcomes that deepen diaspora's relations with India and their role in promoting closer ties between India and ASEAN; as well as events to engage the diaspora youth.

◉ **Pravasi Bhartiya Divas-**The Pravasi Bharatiya Divas (PBD) is celebrated every year to mark the contribution of overseas Indian community in the development of India.

D. About ASEAN (Association of South East Asian Nations)

◉ ASEAN comprises Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam.

◉ ASEAN-India partnership has completed the 25-year milestone and the dialogue partnership has evolved into a strategic partnership.As India's economy grows its ties will deepen, its trade and investment flow will grow with ASEAN.

◉ Asean is India's 4th largest trading partner, accounting for 10.2% of India's total trade. India is Asean's 7th largest trading partner.

E. H1B Visa Rules

◉ The H1B visa program is the primary method for employers to recruit & hire International professionals and International students to work in the USA.

◉ The H1B visa enables US employers to hire foreign professionals for a specified period of time.

◉ The H1B program allows workers in specialty occupations to work in the US for up to a total of six (6) years.

◉ **H1B Visa Qualifying occupation** categories are typically jobs in the fields of IT, Computing, Finance, Accounting, Banking, Marketing, Advertising, PR, Sales, Recruiting, Engineering (all types), Teaching, HealthCare/Medical, Legal, Lawyers, Networking, Telecoms, Business, Management, Scientific Research.

◉ **The H1B worker's family** may also be permitted to live in the US during the period that the H1B visa is in effect, but can not be a paid employee while on an H4 visa. An H1B holders Spouse and children (under the age of 21) can move to and live in teh USA with the H1B holder - but they can not work unless they obtain their own work visa.

◉ During the term of the H1B visa the employee can also apply for permanent residency. This is called "Dual Intent", and is a privilege some other U.S. visas do not enjoy.

◉ Iceland becomes first country to legalise equal pay

◎ Iceland is the first country to make it illegal to pay men more than women.

◎ Equal pay policies are now mandatory for companies with 25 or more employees. Those that cannot show that they provide equal pay will be subject to fines.

◎ Iceland is already a leader in gender parity. The World Economic Forum (WEF) ranked Iceland as the top country for gender equality for the last nine years based on criteria involving economics, education, health, and politics.

◎ For example, Icelandic women make up 48% of the country's parliament—without a quota system. And starting over a decade ago, Iceland made great strides to close the wage gap.

◎ • According to the latest WEF report, the top five best performers in the global gender gap are Iceland, Norway, Finland, Rwanda and Sweden.

◎ • Yemen, on the other hand, is currently the lowest-ranked of the 144 countries measured in the report.

Miscellaneous News

➤ Tuting in Arunachal Pradesh

◎ Tuting is a town Panchayat in Upper Siang district in the north-eastern state of Arunachal Pradesh, India

◎ India and China held a Border Personnel Meeting (BPM) to resolve the incident of road building by Chinese civilians at Tuting in Arunachal Pradesh.

◎ Chinese road building teams had entered about one kilometre inside Indian territory in Tuting, government sources said, adding that they had come for track alignment activities. The teams returned when confronted by Indian troops and left behind various road building equipment, including excavators

➤ Flamingo Festival is being held at Pulicat lake

◎ The annual Flamingo Festival is celebrated at the bird sanctuary at Nelapattu, Pulicat lake and the nearby Sullurupet town in Nellore district of Andhra Pradesh. Various migratory birds including Flamingo come to this part of Andhra Pradesh.

➤ **About Pulicat lake**

◎ Pulicat Lake formerly Palaverkaadu Eri is the second largest brackish water lake or lagoon in India, after Chilika Lake.

◎ 96% of it is in Andhra Pradesh and 4% is in Tamil Nadu situated on the Coromandal Coast in South India.

◎ The lake encompasses the Pulicat Lake Bird Sanctuary.

◎ The barrier island of Sriharikota separates the lake from the Bay of Bengal and is home to the Satish Dhawan Space Centre.

➤ Zoji La tunnel

◎ Zojila Tunnel in Jammu & Kashmir is an upcoming project which aims at providing all weather connectivity between Srinagar, Kargil and Leh.

◎ The Zojila tunnel project has been approved on the Engineering, Procurement and Construction (EPC) mode.

◎ It will comprise a 14.15 km long two lane bi-directional single tube tunnel with a parallel 14.200 km long egress tunnel excluding approaches between Baltal&Minamarg in J&K.

◎ The awaited project will be executed by Ministry of Road Transport & Highways (MoRT&H) through National Highways & Infrastructure Development Corporation Limited (NHIDCL) and will take minimum seven years to complete.

◎ Zojila tunnel project, along with the ongoing 6.5 km Z-Morh tunnel project at Gagangir will provide connectivity between Kashmir and Ladakh.

Chenani – Nashri Tunnel

Its Asia's longestthe two-lane tunnel and is 10.0 km long. This tunnel has cut the distance between Jammu and Srinagar by 41 km. Its the country's longest road tunnel that links the Kashmir Valley with Jammu. The tunnel, bypassing snow-bound upper reaches, reduced the journey time by two hours and provide a safe, all-weather route to commuters travelling from Jammu and Udhampur to Ramban, Banihal and Srinagar.

➤ Online Vendor Registration System

◎ Indian Railways has launched a transparent vendor registration system that will allow small and medium enterprises to become a railway vendor. The system will be completely online

and railways would have open electronic bidding for all items it procures.

- Indian Railways has an annual procurement bill of Rs 50,000 crore every year.

- Railway claims that the move would benefit lakhs of new vendors who wish to do business with railways.

➤ Ranji Trophy

- The Ranji Trophy is a domestic first-class cricket championship played in India between teams representing regional and state cricket associations. The competition currently consists of 28 teams, with 21 of the 29 states in India and Delhi having at least one representation

- The competition is named after first Indian cricketer who played international cricket, Ranjitsinhji, who was also known as "Ranji".

- Winner of 2017-18 Ranji trophy – Vidarbha

- Mumbai have won 41 Ranji trophy championships which are highest.

➤ Indu Malhotra

- The Supreme Court collegium has recommended the name of senior advocate Indu Malhotra as the first woman lawyer to be directly appointed as a judge of the apex court.

- Malhotra, who was designated as a senior advocate in 2007, would be the first woman lawyer to be directly appointed as a judge of the top court, instead of being elevated from a high court.

- She will be the seventh woman judge since Independence to make it to the Supreme Court. At present, Justice R Banumathi is the lone woman judge in the apex court.

- The first woman to be appointed as a judge of the apex court was Justice M Fathima Beevi in 1989.

- Thereafter, Justice Sujata V Manohar, Justice Ruma Pal, Justice Gyan Sudha Misra and Justice Ranjana Prakash Desai made it to the top court as judges.

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" **The only person you are destined to become is the person you decide to be** "

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- Comprehensive Study Material

Batch Starts: 22 nd June, 2018

Batch 1 - Morning	Batch 2 - Evening	Batch 3 - Weekend
Starts: 22nd June, 2018	Starts: 13th July, 2018	Starts: 22nd July, 2018
Timing: 8:00 AM - 10:30 AM	Timing: 5:30 PM to 8:00 PM	Timing: 11:00 AM to 7:30 PM
(Monday to Friday)	(Monday to Friday)	(Saturday & Sunday)