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Current Affairs Digest
November - 2017

Brought out by

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Given below are 50 snippets on November Current Affairs. Shoot down at least 45 correctly and

Be a Current Affairs Grandmaster for November – 2017!!

Statements

1	International Criminal Court is one of the principle organ of United nations.		
2	India is a member of International Energy Agency.		
3	Incheon Strategy aims to considerably lower the disaster risks.		
4	Balfour declaration supports a national home for the Jewish people.		
5	Lebanon is located along the coast of Mediterranean sea.		
6	Vietnam was the Chair of ASEAN for 2017.		
7	Bandhan express connects India and Bangladesh.		
8	Dengue is a Neglected Tropical Disease.		
9	BGR34 is an ayurvedic medicine for Tuberculosis.		
10	Namami Gange is funded completely by central government.		
11	People First Campaign is organized to encourage democratic decentralisation.		
12	Forest Rights Act doesn't allow grazing in forests.		
13	Purchasing Managers Index gives an idea about the performance of both manufacture and service sector.		
14	Diversion of funds tantamount to wilful default.		
15	There is no central authority to manage the liquidity of bitcoin.		
16	Trycyclozole is a fertiliser recently banned in Europe.		
17	Composition Scheme targets small taxpayers.		
18	Mission 41K aims to improve financial position of Public Sector Banks		
19	FAME Scheme covers 2 wheelers, 3 wheelers and 4 wheelers only.		
20	Price Stabilization Fund is designed to ensure Minimum Support Price for rice and wheat.		
21	GI Tag is also granted to manufactured goods.		
22	Global Entrepreneurship Summit is hosted by Niti Ayog and US government.		
23	World Economic Outlook is published by International Monetary Fund.		
24	One horned rhino can be naturally found in Uttar Pradesh, West Bengal and Assam.		
25	Nilgiri Biosphere is spread over three states.		
26	Chennai is the second city to be included in UNESCO's Creative City network.		
27	Huyen Langon is a martial art form from Manipur.		
28	T V Programs and serials require certification for broadcasting.		
29	There is no symbol for NOTA option in elections.		
30	It is mandatory to convene Inter-State Council once in every six months.		
31	Global Gender Gap Index is published by UNDP.		

32	Preventing school dropout is one of the major objective of ICDS.	
33	Paracel Islands are located in southern Indian Ocean.	
34	Peace Clause is recently in news with regard to climate change negotiations	
35	Bonn Challenge aims to conserve forests.	
36	Mullaperiyar dam is located on the river Periyar.	
37	Catalonian region shares border with France.	
38	Mount Agung and Mount Tambora are volcanoes in Indonesia.	
39	Smog is consisted mainly of Carbon dioxide.	
40	Petcoke is a by-product of oil refining process.	
41	Malaria is caused by a parasite.	
42	Corona is the outermost layer of Sun.	
43	Hyperloop system lowers the cost of space missions.	
44	Aflotoxins are produced by fungi.	
45	Anti-Microbial Resistance can be reversed.	
46	Italy and Japan were the focus countries of World Food India 2017.	
47	PRAGATI eGovernance Platform connects Prime Ministers Office with Chief Secretaries.	
48	UMANG app helps in providing information on climate change.	
49	Competition Commission of India is headed by Minister of Finance.	
50	Commissioner of Railway Safety works under the administrative control of Ministry of Civil Aviation.	

BRIEF NOTE ON NEO IAS CURRENT AFFAIRS DIGEST

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All the best!! ☺

1. SOCIAL SECTOR: HEALTH, EDUCATION, VULNERABLE GROUPS

1.1. World Antibiotic Awareness Week and Antimicrobial Resistance

Why in news?

World Antibiotic Awareness Week is celebrated to increase awareness of global antibiotic resistance and to encourage best practices. This year's theme is '**Seek advice from a qualified healthcare professional before taking antibiotics.**'

Basic Facts on Antimicrobial resistance

✓ Antimicrobial resistance (AMR) is the ability of a microorganism (like bacteria, viruses, and some parasites) to stop an antimicrobial (such as antibiotics, antivirals and anti-malarials) from working against it. As a result, standard treatments become ineffective, infections persist and may spread to others.

✓ Microorganisms that develop antimicrobial resistance are sometimes referred to as **superbugs.**

✓ Antimicrobial resistance is the broader term for resistance in different types of microorganisms and encompasses resistance to **antibacterial, antiviral, antiparasitic and antifungal drugs.**

✓ Antimicrobial resistance **occurs naturally** over time, usually through genetic changes. However, the misuse and overuse of antimicrobials is accelerating this process.

✓ WHO has been leading multiple initiatives to address antimicrobial resistance:
   o global action plan on tackle antimicrobial resistance
   o World Antibiotic Awareness Week
   o The Global Antimicrobial Resistance Surveillance System (GLASS)
   o Global Antibiotic Research and Development Partnership (GARDP) - A joint initiative of WHO and Drugs for Neglected Diseases initiative (DNDi)

1.2. Tuberculosis

Why in news?

Union Minister of Health and Family Welfare, reaffirmed India's commitment to eliminating TB by 2025 at 1st WHO Global Ministerial Conference on Ending TB in Sustainable Development Era' at Moscow, Russia. It is also reported that 32% of global deaths due to TB are in India.

The Ministry of Health & Family Welfare has also announced the launch of daily regimen for TB patients across the country under The Revised National TB Control Programme (RNTCP).

Basic Facts on TB

✓ Tuberculosis (TB) is caused **by bacteria** (Mycobacterium tuberculosis) that most often affect the lungs. Tuberculosis is **curable and preventable.**

✓ TB is spread from person to person **through the air.**

✓ TB is the ninth biggest killer disease worldwide and the leading single infectious agent, ranking above HIV/AIDS.

✓ **Sustainable Development Goal (SDG) -3** for TB: reducing the number of deaths by 90% and TB incidence by 80% compared with 2015.

90-90-90 target by 2035

✓ Government committed to achieve **"90-90-90 target by 2035"**- 90% reductions in **incidence, mortality and catastrophic health expenditures** due to TB.

- It is practiced through improved diagnostics, shorter treatment courses, better vaccine and comprehensive preventive strategies.

National Strategic Plan for Tuberculosis Elimination 2017-2025

- It is by **Ministry of Health and Family Welfare.**
- **Goal:** "achieving a rapid decline in burden of TB, morbidity and mortality while working towards elimination of TB by 2025".
- It plans to take a "**detect-treat-prevent-build approach**" in its war against TB.
- This plan came in due to failure of **"Revised National Tuberculosis Control Programme (RNTCP) 2012-2017"**. RNTCP Treated 10 million patients, but rate of decline was slow.
- RNTCP goal was: Providing universal access to early diagnosis, treatment and improving case detection.

Why was it needed?

- Despite a reduced number of Tuberculosis deaths in 2016, India continued to have the highest TB casualty in the world. **WHO's Global Tuberculosis Report 2017** has recorded 4.23 lakh TB deaths (without HIV) in India, a slight dip from the 4.8 lakh deaths in 2015.
- Though the Revised National Tuberculosis Control Programme (RNTCP) has treated 10 million patients, the rate of decline has been slow.
- Going by the current rate of decline, India was far from reaching the 2030 Sustainable Development Goals — reducing the number of deaths by 90% and TB incidence by 80% compared with 2015.

Features of the Plan

- Does away with the strategy of waiting for patients to walk in and to get tested. Instead, engages in detecting more cases, both drug-sensitive and drug-resistant.
- **Emphasis on**: use of highly sensitive diagnostic tests, undertaking universal testing for drug-resistant TB, reaching out to TB patients seeking care from private doctors, targeting people belonging to high risk population.
- Provide anti TB treatment, public or private, and ensure treatment completion.
- Patient friendly support to provide treatment and social support.
- Make daily regimen universal (currently in 5 states) as against the thrice weekly regimen in RNTCP.
- Rapid scale up of short course regimens for drug resistant TB.

The Revised National Tb Control Programme (Rntcp)

Objectives of the Programme

- Under the Revised National Tuberculosis Control Programme (RNTCP), Government is committed **to end tuberculosis by 2025.**

Facilities

- Under this programme, diagnosis and treatment facilities including anti-TB drugs are provided **free of cost to all TB patients.**
- Designated microscopy centres have been established for quality diagnosis for every one lakh population in the general areas and for every 50,000 population in the tribal, hilly and difficult areas.

DOT Centers

- Treatment centres (DOT Centres) have been established near to residence of patients to the extent possible, both, in Urban and Rural areas.
- All Government Hospitals, Community Health Centres (CHC), Primary Health Centres (PHC), Sub Centres are DOT centres. In addition NGOs, Private Practitioners (PPs) involved under the RNTCP, community volunteers, Anganwadi workers, women self-help groups etc. also function as DOT providers/DOT Centres.

NIKSHAY

- **NIKSHAY** is a web based solution for monitoring of TB patients under RNTCP.

Drugs for the treatment of TB

- **Bedaquiline** (drug for people who do not respond to any anti-TB medicine) and **Delamanid,** currently available in only 6 sites in the country.

1.3. India Hypertension Management Initiative

Why in news?

Ministry of Health and Family Welfare and the ICMR launched the India Hypertension Management Initiative (IHMI).

About IHMI

- The IHMI aims to reduce disability and death related to cardiovascular disease (CVD), the leading cause of death in India, by improving the control of high blood pressure (hypertension), reducing salt consumption and eliminating artificial trans-fats, leading risk factors for CVD.
- It is a collaborative project of Indian Council of Medical Research (ICMR), Ministry of Health and Family Welfare (MoHFW), State Governments, World Health Organization (WHO), and Resolve to Save Lives initiative of Vital Strategies.
- It will focus on strengthening hypertension management and monitoring at the primary health care level, within the existing healthcare system, and is aligned with WHO's Global HEARTS Initiative and National Guidelines.

1.4. National Rural Drinking Water Program (NRDWP)

Why in News?

The Union Cabinet has given its approval to the continuation of National Rural Drinking Water Program (NRDWP) with adequate improvement in the scheme to make it **"outcome-based, competitive and better monitored"** for the next three years (2017-18 to 2019-2020). The sub-program under NRDWP viz. **National Water Quality Sub-Mission (NWQSM)** will **address the urgent need for providing clean drinking water in about 28,000 arsenic and fluoride affected habitations** which have already been identified.

About NRDWP

- This is a centrally sponsored scheme which was launched in 2009 by replacing its previous version ie. **Accelerated Rural Water Supply Programme**.
- The fund is shared between the Centre and the state in the ratio 50:50.
- The nodal Ministry is **the Ministry of Drinking water and Sanitation.**

Objectives of the scheme

- ensure the **sustainability** of drinking water sources.
- ensure supply of **safe drinking water.**
- ensure **water accessibility** at all times and in all situation.
- allocation to States with **chemical contamination affected** habitations and areas reporting **Japanese Encephalitis and Acute Encephalitis** cases (JE/AES).
- for coverage of water quality affected habitations.

- To incentivise States to involve the **Panchayati Raj Institutions (PRI)** in the planning, operation and management for drinking water supply schemes.
- adopt improved **Operation & Maintenance (O&M)** methods for their better working and to control leakages.

1.5. Guinea Worm Disease (GWD) and Other Neglected Tropical Diseases

- It is an infection caused by the **parasite** Dracunculus medinensis.
- GWD is spread **by drinking water** containing Guinea worm larvae.
- GWD affects poor communities in remote parts of Africa that do not have safe water to drink.
- GWD is considered by global health officials to be a neglected tropical disease (NTD) – the first parasitic disease slated to be eradicated.
- During 2014, only four countries had local GWD cases: Chad, Ethiopia, Mali, and South Sudan. The cases have gone from 3.5 million per year in 1986 to 126 in 2014.

Neglected tropical diseases (NTDs)

- A diverse group of **communicable diseases** that prevail in **tropical and subtropical conditions** in 149 countries – affect more than one billion people and cost developing economies billions of dollars every year.
- Populations living in poverty, without adequate sanitation and in close contact with infectious vectors and domestic animals and livestock are those worst affected.
- The main tropical diseases in India include **Dengue, Trachoma, Leprosy, Lymphatic Filariasis, Soil-transmitted Helminthiases, Rabies and Kala-azar.**

1.6. Mission Madhumeha and BGR34

Mission Madhumeha

- It is launched by **Ministry of AYUSH** to provide an effective **check to the menace of diabetes** which itself is a root cause of many other health problems.
- Launched in November 2016.

What is "BGR34"?

It is the trade name for the **Anti-diabetic Herbal Composition for Type-2 diabetes mellitus** (NBRMAP-DB). It is developed by CSIR.

1.7. Namami Gange

Why in News?

In order to acknowledge the river's importance and celebrate its magnificence, National Mission for Clean Ganga (NMCG) organised a cultural evening – "Ek Shaam Ganga ke Naam" on 4th of November in New Delhi. On this date in 2008, Ganga was declared as the **National River of India.**

Namami Gange Program

- Namami Gange Project or Namami Ganga Yojana is an ambitious Union Government Project which integrates the efforts to clean and protect the Ganga river in a **comprehensive manner.** The project is officially known as **Integrated Ganga Conservation Mission project** or 'Namami Ganga Yojana'.
- Ganga Basin is the largest river basin in India in terms of catchment area which is spread over **11 states** that constitutes 26% of the country's land mass and supports about 43% of its population.

Key features:

- Over 1,632 gram panchayats on the banks of Ganga to be made open defecation-free **by 2022.**
- Prime focus will be on **involving people** living on the river's banks in this project.
- **Setting river centric urban planning** process to facilitate better citizen connects, through interventions at Ghats and River fronts.
- States and Urban Local Bodies and Panchayati Raj institutions will be involved in this project.

- ✓ **Enforcement of Ganga specific River Regulatory Zones.**
- ✓ Development of rational agricultural practices & efficient irrigation methods.
- ✓ **Setting Ganga Knowledge Centre and Introduction of Territorial Army Ganga Eco-Task Force.**
- ✓ It is **100% central funded scheme.**
- ✓ Previous approaches for Ganga cleaning: Ganga Action Plan – 2 phases – started in 1985.

1.8. Water Aid Report

- ✓ Water Aid has recently released a report entitled *"Out of Order – The State of the World's Toilets 2017"*. It misses out on most of the progress under the Swachh Bharat Mission as it rely only on data till 2015. Therefore the report portrayed India in a bad light with respect to Sanitation standards.
- ✓ WaterAid is an international organisation whose mission is to transform the lives of the poorest and most marginalised people by improving access to clean water, sanitation and hygiene.

EDUCATION

1.9. The Higher Education Financing Agency (HEFA)

Why in news?

The Higher Education Financing Agency (HEFA) is to discuss and approve proposals for financial support submitted by top five IITs.

About the agency

- ✓ The Higher Education Financing Agency (HEFA) is set up by the NDA government **to facilitate funds to boost infrastructure, especially state-of-the-art laboratories, in premier higher educational institutions.**

Finance

- ✓ The HEFA would be formed as a **Special Purpose Vehicle** within a PSU Bank/ Government-owned-NBFC (Promoter). It would leverage the equity to raise up to Rs. 20,000 crore for funding projects for infrastructure and development of world class Labs in IITs/IIMs/NITs and such other institutions.
- ✓ The HEFA would be jointly promoted by the identified Promoter and the Ministry of Human Resource Development (MHRD) with an authorised capital of Rs.2,000 crore. The Government equity would be Rs.1,000 crore.
- ✓ The HEFA would finance the civil and lab infrastructure projects through a 10-year loan. The loan will be repaid by the institute and through the regular Plan assistance of government.

Membership

- ✓ **All the Centrally Funded Higher Educational Institutions** would be eligible for joining as members of the HEFA.
- ✓ For joining as members, the Institution should agree to escrow a specific amount from their internal accruals to HEFA for a period of 10 years.
- ✓ This secured future flows would be securitised by the HEFA for mobilising the funds from the market.

Watch Video on HEFA in NEO IAS Youtube channel

1.10. National Testing Agency

Why in News?

The Union Cabinet recently approved the creation of a National Testing Agency (NTA) as a **Society registered under the Indian Society Registration Act, 1860**, and as an **autonomous and self-sustained premier testing organization** to conduct entrance examinations for higher educational institutions.

Aim of NTA

- ✓ Bring in high **reliability, standardized difficulty level** for assessing **the aptitude, intelligence and problem solving abilities** of students.

Role of NTA

- National Testing Agency will be the nodal agency to conduct entrance tests like the Joint Engineering Entrance (JEE), NEET, UGC's National Eligibility Test (twice a year), Central Teacher Eligibility Test (twice a year) and the entrance test for Jawahar Navodaya Vidyalayas.
- The entrance examinations will be conducted in **online mode** at least twice a year.
- For students in the rural areas, it would locate the centres at **sub-district and district level**. NTA would also undertake training for these students for their better performance in the examination.

Composition
- Chairman, appointed by the Human Resources Development Ministry,
- Director General, who will be appointed by the government and
- A Board of Governors comprising members from user institutions.
- The Director General of this body will be assisted by nine verticals headed by academicians and experts.

Fund
The NTA will be given a one-time grant of Rs 25 crore from the central government to start its operation in the first year. Thereafter, it is to be financially self-sustainable.

Watch video on National Testing Agency in NEO IAS Youtube Channel.

1.11. National Institutional Ranking Framework

Why is in news?
The National Institutional Ranking Framework (NIRF) will become more comprehensive in its third edition in 2018, with top colleges of the country set to compete with one another.

Features
- The National Institutional Ranking Framework (NIRF) was approved by the MHRD and launched in September 2015.
- This framework outlines a methodology to rank institutions across the country.
- The Indian Institute of Science (IISc), Bangalore, the first Indian institution to make it to the top 10 in small universities global ranking, has been placed at the top in the NIRF 2017.
- NIRF is an attempt to provide **credible official rankings** of India's higher educational institution on a set of parameters.

Parameters evaluated
- The parameters are under the five broad headings:
  1. **teaching learning and resources**
  2. **research, consulting and collaborative performance**
  3. **graduation outcomes**
  4. **outreach and inclusivity**
  5. **perception**.
- India Rankings – 2016 based on this framework were released in April 2016.
- For India Rankings – 2017, the main ranking parameters remain the same. However, there are a few significant changes in a few sub-parameters.

Watch Video on NIRF in NEO IAS Youtube Channel.

1.12. National Achievement Survey (NAS)

Why in news?
The National Achievement Survey (NAS) is the largest ever national assessment survey in the country and is amongst the largest in the world. The learning levels of more than 25 lakhs students from 1, 10,000 across 700 districts in all 36 States/UTs were assessed. It was conducted throughout the country.
What?

- It is a research study undertaken by **the National Council of Educational Research and Training (NCERT)** and **supported by the Ministry of Human Resource Development.**

Aim

- **It is to understand how effectively the school system is working in the country based on student learning.**

How?

- The survey tools used **multiple test booklets with 45 questions** in Classes III and V related to language, mathematics and 60 questions in Class VIII in Mathematics, Language, Sciences and Social Sciences.
- The competency based test questions developed reflected the Learning Outcomes developed by the NCERT which were recently incorporated in the Right to Education Act (RTE) by the Government of India.
- The district wise learning report cards will be prepared based on a software especially designed for this.
- **NAS is a transparent and credible exercise done under third party verification.**

Why?

- NAS results will help **guide education policy, planning and implementation** at national, state, district and classroom levels for improving learning levels of children and bringing about qualitative improvements.

  Watch video on NAS in NEO IAS Youtube Channel

VULNERABLE SECTIONS

1.13. Pradhan Mantri Mahila Shakti Kendra

Why in news?
The Cabinet Committee on Economic Affairs given approval to the new scheme called 'Pradhan Mantri Mahila Shakti Kendra.'

More about the scheme
- **Ministry of women and child development** launched this scheme under as a part of the Umbrella Scheme **"Mission for Protection and Empowerment for Women.**

Objectives
- It will empower rural women through **community participation** to create an environment in which they realize their full potential.
- Activities at national level will give domain based knowledge support.

Activities
- "Pradhan Mantri Mahila Shakti Kendra (PMMSK)" is envisaged to work at various levels – **national, state, district and block level.**
- In the state level, **State Resource Centre for Women** will provide technical support to the respective government on issues related to women.
- The most significant initiatives will be at the block level wherein community engagement **through student volunteers** is planned in those 115 backward districts where PMMSKs will be set up.
- Through district level and block level intervention, government also plan to expand the Bet Bachao Beti Padao campaign to all district in phased manner.

1.14. Global Gender Gap Report, 2017

Why in news?
India slipped 21 places on Global Gender Gap Index, 2017 (ranked 108/144 as compared to 87 last year).
Reason is widening of India's gender gaps in political empowerment as well as in healthy life expectancy and basic literacy.
More about the report

- The report, published by WEF, benchmarks 144 countries on their progress towards gender parity across **four thematic dimensions:**
  1. Economic Participation and Opportunity
  2. Educational Attainment
  3. Health and Survival
  4. Political Empowerment
- This year Industry talent pools and occupations was also considered.
- Top ranks 2017 – **Iceland, Norway and Finland**
- Bangladesh 47th rank – highest rank in South Asia
- **India slipped 21 places on Global Gender Gap Index, 2017** (ranked 108/144 as compared to 87 last year)
- **Reason:** widening of **India's gender gaps in political empowerment as well as in healthy life expectancy and basic literacy.**

Gender Inequality Index

- It is **an inequality index used for measurement of gender disparity**.
- It was introduced in the 2010 Human Development Report by the **UNDP.**

1.15. Beti Bachao Beti Padhao

Why in news?
The Cabinet Committee on Economic Affairs has given its approval for expansion of Beti Bachao Beti Padhao for a Pan India reach covering all the 640 districts of the Country.

More about the Scheme
- The Scheme was launched by the Prime Minister on 22nd January, 2015 at Panipat, Haryana as a comprehensive programme to address the declining Child Sex Ratio (CSR) and related issues of empowerment of women over a life-cycle continuum.
- The scheme is being implemented as a **tri-ministerial**, convergent effort of **Ministries of Women and Child Development, Health & Family Welfare and Human Resource Development.**
- At the Central level, **Ministry of Women and Child Development** is the nodal ministry for the programme.
- It focus on awareness and advocacy campaign, multi-sectoral action in select 161 districts, enabling girls' education and effective enforcement of Pre-Conception & Pre Natal Diagnostic Techniques (PC&PNDT) Act.
- **Three specific objectives of the scheme are**
  - preventing gender biased sex selective elimination;
  - ensuring survival and protection of the girl child
  - ensuring education and participation of the girl child.

1.16. Regional Women Safety Initiatives

Why in news?
The Union Home Secretary chaired a meeting to kick start the process of formulating comprehensive safe city plans for women in eight metropolitan cities of the country. In the meeting, the initiatives taken by these cities for women's safety were also discussed in detail.

Know the regional initiatives

Initiatives	Places
Himmat App, All Women Patrol Van, Shishtachar programme	Delhi
SHE teams, Hawkeye Mobile App & Bharosa programme	Hyderabad

| Suraksha App | Bengaluru |
| Power Angels | Uttar Pradesh |

1.17. Integrated Child Development Services

Why in News?

The Cabinet Committee on Economic Affairs has given its approval for continuation of Anganwadi Services, Scheme for Adolescent Girls, Child Protection Services and National Crèche Scheme with an outlay of over Rs.41,000 crore. These are the sub-schemes under Umbrella Scheme "**Integrated Child Development Services (ICDS)".**

More about the Scheme

✓ Launched on 2nd October, 1975, the Integrated Child Development Services (ICDS) Scheme is one of the flagship programmes of the Government of India and represents one of the world's largest and unique programmes **for early childhood care and development.**

✓ Reduction of the incidence of mortality, morbidity, malnutrition and school dropout is the major objective of the scheme.

Beneficiaries

✓ The beneficiaries under the Scheme are children in the **age group of 0-6 years, pregnant women and lactating mothers**.

Services Offered

✓ The ICDS Scheme offers a package of six services, viz.
  o Supplementary Nutrition
  o Pre-school non-formal education
  o Nutrition & health education
  o Immunization
  o Health check-up and
  o Referral services

Sub Schemes

✓ The ongoing schemes have been rationalized by the Government in financial year 2016-17 and have been brought under Umbrella ICDS as its sub-schemes. These sub-schemes need to be continued for delivering the child related services to the intended beneficiaries. These sub-schemes are:
  o Anganwadi Services
  o Scheme for Adolescent Girls
  o Child Protection Services
  o National Creche Scheme

Watch Video on ICDS in NEO IAS Youtube Channel

1.18. Hausala 2017

✓ It Is an inter Child Care Institutions (CCIs) Festival organized by Ministry of Women and Child Development as part of the Child Rights Week from 16th to 20th November, 2017.

✓ The country celebrates the Children's Day on 14th November and the International Child Rights Day is celebrated on 20th November every year. The period between the two important events will be celebrated as Child Rights Week by WCD Ministry.

1.19. Rashtriya Bal Kalyan Award

President awarded this year's "**Rashtriya Bal Kalyan Award**" to Super 30 founder Anand Kumar for his contributions in the field of teaching and education.

What is it?

✓ The award, launched by the Department of Women and Child Development, carries a citation and Rs. 1 lakh. The awardees are selected after shortlisting the entries from all over the country.

1.20. People First Campaign and Atal Pension Yojana

✓ A state-specific mobilisation campaign by The Pension Fund Regulatory and Development Authority (PFRDA) to increase the number of subscribers in **Atal Pension Yojana (APY).**

✓ The first campaign is being conducted in Uttar Pradesh from 7 to 14 November.

Atal Pension Yojana

✓ This is a **pension scheme for unorganised sector workers**, who are not part of any other social security scheme.

✓ The scheme was launched in June 2015 by the **government by replacing Swavalamban Yojana.**

✓ The Atal Pension Yojana is administered by the PFRDA (Pension Fund Regulatory and Development Authority) under the National Pension System (NPS).

Eligibility criteria

    ✓ An Indian citizen

    ✓ Have a valid bank account

    ✓ Are between 18 and 40 years of age

✓ Under this plan, the subscriber will **receive a fixed pension** after the age **of 60,** depending on his contribution amount and tenure.

✓ It provides **guaranteed pension of Rs 1,000 to Rs 5,000 to the subscribers.**

✓ After the death of the account holder, the **spouse will be entitled** to get the exact same pension amount as the subscriber, until the death of the spouse.

✓ **The nominee will receive** the entire pension amount accrued by the account holder after the death of the subscriber and his spouse.

Previous Year Question

Q. Regarding 'Atal Pension Yojana', which of the following statements is/are correct? (2016 Prelims)

1. It is a minimum guaranteed pension scheme mainly targeted at unorganized sector workers.

2. Only one member of a family can join the scheme.

3. Same amount of pension is guaranteed for the spouse for life after subscriber's death.

Select the correct answer using the code given below.

(a) 1 only

(b) 2 and 3 only

(c) 1 and 3 only

(d) 1, 2 and 3

Answer (c)

1.21. National Pension System

Why in News?

Maximum age of joining National Pension System (NPS) increased from the existing 60 years to 65 years under NPS- Private Sector. Now, any Indian Citizen, resident or non-resident, between the age of 60- 65 years, can also join NPS and continue up to the age of 70 years in NPS.

More about NPS

Objective

✓ The National Pension System (NPS) was launched on 1st January, 2004 with the objective of providing retirement income to all the citizens.

✓ NPS aims to institute pension reforms and to inculcate the habit of saving for retirement amongst the citizens.

Coverage

- ✓ Initially, NPS was introduced for the new government recruits (except armed forces).
- ✓ With effect from 1st May, 2009, NPS has been provided for all citizens of the country including the unorganized sector workers on voluntary basis.
- ✓ **Any citizen of India, whether resident or non-resident** aged between 18 – 65 year can join NPS either as individuals or as an employee-employer group(s) (corporates).

Beneficial features

- ✓ NPS offers following important features to help subscriber save for retirement:
    - ✓ The subscriber will be allotted a unique **Permanent Retirement Account Number (PRAN).**
    - ✓ This unique account number will remain the same for the rest of subscriber's life. This unique PRAN can be used from any location in India.
    - ✓ PRAN will provide access to **two personal accounts**:
        - ▪ **Tier I Account**: This is a non-withdrawable account meant for savings for retirement.
        - ▪ **Tier II Account**: This is simply a voluntary savings facility. The subscriber is free to withdraw savings from this account whenever subscriber wishes. No tax benefit is available on this account.

1.22. Hunar Haat

Why in news?

The fourth *Hunar Haat* exhibition is being organised by the Ministry of Minority Affairs at India International Trade Fair (IITF) at New Delhi.

What is it?

- ✓ One of the flagship programmes organised by Ministry of Minority Affairs.
- ✓ Under **USTTAD (Upgrading the Skills& Training in Traditional Arts/Crafts for Development) scheme.**
- ✓ USTTAD scheme aims **at preserving & promoting the rich heritage of the traditional arts & crafts of the Minority communities.**
- ✓ These exhibitions bring both domestic and international markets to the artisans and craftsmen, empowering them with various resources.

Funding

- ✓ **National Minority Finance Development Corporation** supports them with financial aid/ loans etc.

1.23. Pradhan Mantri Awas Yojana (Urban)

Why in news?

The Union Cabinet gave its nod for an increase in the carpet area of the affordable houses eligible for interest subsidy under the Credit Linked Subsidy Scheme (CLSS) for the Middle Income Group (MIG) under the Pradhan Mantri AwasYojana (Urban).

More about PMAY (Urban)

Objectives

- ✓ The Pradhan Mantri Awas Yojana (Urban) Programme launched in June 2015 by the Ministry of Housing and Urban Poverty Alleviation (MoHUPA), in Mission mode envisions **provision of Housing for All by 2022,** when the Nation completes 75 years of its Independence.
- ✓ The Government envisages building affordable *pucca* houses with water facility, sanitation and electricity supply round-the-clock.
- ✓ The Mission seeks to address the housing requirement of urban poor including slum dwellers through:
    - o Slum rehabilitation of Slum Dwellers with participation of private developers.
    - o Promotion of Affordable Housing for weaker section through credit linked subsidy
    - o Affordable Housing in Partnership with Public & Private sectors

o   Subsidy for beneficiary-led individual house construction /enhancement.

Beneficiaries

✓   Beneficiaries include Economically weaker section (EWS), low-income groups (LIGs) and Middle Income Groups (MIGs).

Funding

✓   "Housing for All" Mission for urban area is being implemented during 2015-2022 and this Mission will provide central assistance to implementing agencies through States and UTs for providing houses to all eligible families/beneficiaries by 2022.
✓   Mission will be implemented as Centrally Sponsored Scheme (CSS) except for the component of credit linked subsidy which will be implemented as a Central Sector Scheme.

1.24. Forest Rights Act, 2006

Why in news?

The Odisha government has handed over trade rights of kendu (tendu) leaf, an important minor forest produce, to residents of six villages in Kalahandi district, Odisha. Now, Residents of six villages in the Kegaon range of the Bhawanipatna kendu leaf division are free to sell kendu leaf to anybody of their choice as per rights conferred under Forest Rights Act 2006.

More about the Act

✓   The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 is called as Forest Rights Act.
✓   Forest Rights granted under the Act are
    o   **Title rights -** i.e. ownership - to land that is being farmed by tribals or forest dwellers as on 2005, subject to a maximum of 4 hectares; ownership is only for land that is actually being cultivated by the concerned family. No new lands are granted after this.
    o   **Use rights -** to minor forest produce (also including ownership), to grazing areas, to pastoralist routes, etc
    o   **Relief and development rights** - to rehabilitation in case of illegal eviction or forced displacement; and to basic amenities, subject to restrictions for forest protection
    o   **Forest management rights** - to protect forests and wildlife
✓   **Ministry of Tribal Affairs** is the nodal ministry in implementing the act.
✓   **Gram Sabha** is the authority in deciding the forest rights.

> **What kind of questions to expect from Legislations (Prelims 2017)**
>
> With reference to the 'Prohibition of Benami Property Transactions Act, 1988 (PBPT Act)', consider the following statements:
>
> 1.   A property transaction is not treated as a benami transaction if the owner of the property is not aware of the transaction.
>
> 2.   Properties held benami are liable for confiscation by the Government.
>
> 3.   The Act provides for three authorities for investigations but does not provide for any appellate mechanism.
>
> Which of the statements given above is/are correct?
> (a)   1 only
> (b)   2 only
> (c)   1 and 3 only
> (d)   2 and 3 only
>
> Solution: B

1.25. North East Rural Livelihood Project

Why in news?

The Union Minister of State for Development of North-Eastern Region (DoNER) launches an exclusive "Rural Livelihood" scheme for the Northeast- North East Rural Livelihood Project".

More about the project

- It is being supported by the **World Bank** and will primarily benefit the tribals and the lower socioeconomic groups, including women, in the North-Eastern Region (NER).
- The project is aimed at assisting over 10,000 Self Help Groups (SHGs) and benefit about three lakh poor households.
- As the first step, four states, - Mizoram, Nagaland, Sikkim and Tripura, will be taken up for helping the tribal and even the non-tribal lower groups living in remote areas.

2. ECONOMY: CONCEPTS, SCHEMES AND INSTITUTIONS

CONCEPTS

2.1. 'Ease Of Doing Business Index' and Doing Business Report

Why in news?

India climbed up from 130 to 100 (out of 190) **'Ease of doing Business' ranking by the World Bank**, in its **'Doing Business, 2018'** report.

More about the report
- The ease of doing business index is **an index created by the World Bank Group.**
- The Doing Business project **provides objective measures of business regulations and their enforcement across 190 economies** and selected cities at the sub national and regional level.
- **The Doing Business project, launched in 2002**, looks at domestic small and medium-size companies and measures the regulations applying to them through their life cycle.
- **The first Doing Business report, published in 2003**, covered 5 indicator sets and 133 economies.
- This year report covers 10 indicator sets and 190 economies.

Previous Year Question

Q) India's ranking in the **'Ease of Doing Business Index'** is sometimes seen in the news. Which of the following has declared that ranking?
 (a) Organization for Economic Cooperation and Development (OECD)
 (b) World Economic Forum
 (c) World Bank
 (d) World Trade Organization (WTO)
Answer (c)

Eleven Indicators (see the parameters, ranking is not important)

PARAMETERS	RANK AS PER DOING BUSINESS 2018 REPORT	RANK AS PER DOING BUSINESS 2017 REPORT
Starting a Business	156	155
Getting Credit	29	44
Trading Across Borders	146	143
Dealing With Construction Permits	181	185
Protecting Minority Investors	4	13
Getting Electricity	29	26
Enforcing Contracts	164	172
Paying Taxes	119	172
Resolving Insolvency	103	136
Registering Property	154	138
Source: 8		

Distance to Frontier (DTF) score

- ✓ India's jump in rank is based on improvement in **the Distance to Frontier (DTF) score.**
- ✓ DTF **measure the distance of each economy to the frontier that represents the best performance observed on each of the indicators across all economies** in the Doing Business Sample.

Reforms Made by India

- ✓ India made eight reforms across these aspects last year – the **highest number for a country in a single year.**
- ✓ **These reforms include**
  - o Faster permits for construction
  - o Combining the application for the Permanent Account Number (PAN) and the Tax Account Number (TAN) into a single submission
  - o Reduction in the time needed to complete the applications for Employee's Provident Fund Organization (EPFO) and the Employee's State Insurance Corporation (ESIC),
  - o Reduction in export and import border compliance costs
  - o Improved access to credit
  - o Establishment of debt recovery tribunals reduced non-performing loans by 28%
  - o Lowered interest rates on large loans
- ✓ India – moved from last position in BRICS countries to second last overtaking Brazil in this ranking (Russia at 35 best amongst BRICS countries).
- ✓ New Zealand, Singapore and Denmark at 1, 2 3 spots respectively.
  Watch Video on Ease of Doing Business in NEO IAS youtube channel.

> ### *What Kind of Questions to Expect*
> Which of the following is/are the indicator/indicators used by World Bank to compute the Ease of Doing Business Index Report?
> 1. Getting electricity
> 2. Resolving insolvency
> 3. Enforcing contracts
> Select the correct answer using the code given below.
> (a) 1 only
> (b) 2 and 3 only
> (c) 1, 2 and 3
> (d) 1 and 3 only
> **Answer (c)**

2.2. Strategic Disinvestment

Why in News?
Air India has begun its eventual strategic disinvestment by setting up five internal project teams to work towards ensuring that the timelines set by the government are met and the objective is achieved in a time-bound manner.

Difference between Strategic disinvestment and ordinary disinvestment

- ✓ Strategic disinvestment of a Public Sector Unit is different from the ordinary disinvestment. This is because in the case of strategic sale, **the control and a significant proportion of a PSU's share goes to a private sector strategic partner**.
- ✓ According to the Department of Disinvestment, in the strategic sale of a company, the transaction has two elements: Transfer of a block of shares to a Strategic Partner and **Transfer of management control** to the Strategic Partner.

How and why?

- ✓ Strategic sale usually takes place when more than 51% of shares go to the private sector strategic partner. However, it is **not necessary that more than 51% of the total equity goes to the Strategic Partner** for the transfer of management to take place. Or in other words strategic sale can take place even if the private sector partner gets less than 51% shares.
- ✓ Strategic sale in India shows is an important way for privatization.

Mechanism for Strategic Disinvestment

- ✓ **Department of Investment and Public Asset Management(DIPAM)** lays down the procedure and mechanism for strategic disinvestment of Central Public Sector Enterprises (CPSEs).

- **Niti Aayog** will identify CPSEs for strategic disinvestment and suggest methods for valuation of the CPSE apart from advising the Government on mode and percentage of shares to be sold in a CPSE.

2.3. The Purchasing Managers' Index (PMI)

Why in news?

PMI frequently appear in news as a measurement of level of economic activity.

More about the Index

- The Purchasing Managers' Index (PMI) is an **indicator of the economic health of the manufacturing sector and service sectors**.
- The PMI is based on five **major indicators: new orders, inventory levels, production, supplier deliveries and the employment environment.**
- The purpose of the PMI is to **provide information about current business conditions to company decision makers, analysts and purchasing managers.**
- For India, the **PMI Data is published by Japanese firm Nikkei but compiled and constructed by Markit Economics (for the US, it is the ISM).**
- A manufacturing PMI and services PMI are prepared and published by the two.
- A **reading above 50** in Nikkei India Manufacturing PMI indicates **an expansion in activity, while one below 50 denotes a contraction.**
- **The Nikkei 225** more commonly called the **Nikkei, the Nikkei index,** or the Nikkei Stock Average is a **stock market index for the Tokyo Stock Exchange (TSE).**

2.4. Terms Related to Tax Evasion Prevention

Why in news?

India eases bilateral **transfer pricing norms** and Income Tax department to allow **Advanced Pricing Agreements** and Mutual Agreement Procedures with trade partners.

Transfer Pricing

- Transfer pricing refers to the **pricing of international transactions between two associated enterprises.**
- Transfer prices are used when individual entities of a larger multi-entity firm are treated and measured as separately run entities.
- Due to the special relationship between these related parties, the transfer price may be different to the price that would have been agreed between unrelated parties.
- It helps in minimizing the tax burden and results in shifting profits.

Advanced Pricing Agreements

- The Advance Pricing Agreement (APA) program allows the taxpayer and the tax authority **to avoid future transfer pricing disputes by entering into a prospective agreement,** generally covering at least five tax years, regarding the taxpayer's transfer prices.
- APAs gives certainty to taxpayers, reduce disputes, enhance tax revenues and make the country an attractive destination for foreign investments.
- These agreements would be binding both on the taxpayer as well as the government.

Mutual Agreement Procedures

- Taxpayers may enter into APAs with more than one tax authority – i.e., bilateral or multilateral APAs - through the mutual agreement procedure (MAP) included in most income tax treaties.
- The main benefit of pursuing MAP is elimination of double taxation.
  While APAs are meant to settle potential disputes in advance, MAPs lay out the procedure to settle a dispute once it has happened.

2.5. Wilful Default

Why in News?

To ensure the success of the bankruptcy process under the Insolvency and Bankruptcy Code (IBC), the Finance Ministry has asked banks to be vigilant to ensure that wilful defaulters are prevented from buying stressed assets again.

Wilful default

According to the RBI, a wilful default is deemed to have occurred in any of the following four circumstances:
- **Deliberate default**: When there is a default in repayment obligations by the unit (company/individual) to the lender even when it has the capacity to honour the said obligations. There is deliberate intention of not repaying the loan.
- **Diversion of funds:** The funds are not utilised for the specific purpose for which finance was availed but have been diverted for other purposes.
- **Siphoning off of the funds:** When the funds have been siphoned off and not been utilised for the purpose for which it was availed. Further, no assets are available which justify the usage of funds.
- **Secretly selling the assets**: When the asset bought by the lenders' funds have been sold off without the knowledge of the bank/lender.

According to government reports wilful defaulters owe Public Sector Banks a total of Rs 64,335 crore, which constitutes about **21% of the total NPAs**.

2.6. Asset Reconstruction Company

Why in news?

In a major boost to asset reconstruction companies (ARCs), the Reserve Bank of India(RBI) has relaxed norms capping their share-holdings at 26% in the borrower firm under reconstruction.

More about ARC
- ARCs are **centralised agencies** for **resolving bad loans** created out of a systematic crisis.
- ARCs buy up distressed assets from banks/card companies and other financial institutions, re-package them and then sell them in the market.
- Because ARCs deal with a larger portfolio, they can mix up good assets with bad ones and make a sale which is palatable to buyers.
- At the same time, the ARC can float bonds and recover dues from the borrowers directly.
- Nonperforming assets (NPAs) can be assigned to ARCs by banks at a discounted price, enabling a **one-time clearing** of the balance sheet of banks of sticky loans. And it is easier to do a capital-market based funding for an ARC than for the banks themselves.
- ARCs can have several alternate structures. They can either be publicly or privately owned or a combination of both, and can be either separately capitalised units or wholly-owned subsidiaries.

2.7. Crypto Currencies, Bit Coin

Why in News?

Virtual currency bitcoin soared to an all-time high above $10,000 on major exchanges and digital currency indexes, including the widely followed Luxembourg-based trading platform BitStamp.

Crypto currency/virtual currency

- ✓ A cryptocurrency is basically a digital asset that has been created to function as a medium of exchange, like cash. It uses **cryptography** to ensure the security of transactions.
- ✓ This is different from cash in that cryptocurrencies have **no physical form**. They are simply numbers on a screen and **there is no central bank** that issues new currency.
- ✓ Cryptocurrency values are highly volatile.
- ✓ At the moment, the Reserve Bank of India has **banned transactions** in India using cryptocurrencies

Bitcoins

- ✓ Bitcoin is the most popular virtual currency.
- ✓ It is **the first decentralized digital currency**, as the system works without a central bank or single administrator.
- ✓ Bitcoins are hidden in data blocks. They can be mined by solving these data blocks using special computer software. It is exchanged then.
- ✓ Other major virtual currencies are: **Litecoin, Ethereum, Zcash, Dash, Ripple, Monero.**

2.8. Fiscal Slippage

Why in news?

According to credit agency ICRA report, there are continuing concerns regarding a potential **fiscal slippage** at the Union Government level.

What is it?

- ✓ Fiscal slippage refers to the **missing of fiscal targets in the country's budget.**
- ✓ It can happen in two ways, either **there is a shortfall in revenue** or the **expenditure may shoots up.**

Fiscal Consolidation and fiscal slippage

Fiscal Consolidation refers to the **policies undertaken by Governments to reduce their deficits.** For instance, India set a fiscal consolidation target of 3 per cent. It means Government's fiscal deficit should not go beyond 3 per cent of GDP. And policies undertaken to meet this target is known as fiscal consolidation. When these targets are missed we can call it as fiscal slippage.

2.9. Sovereign Credit Rating

Why in News?

Global credit rating agency Moody's Investor Services raised India's sovereign bond rating for the first time in 14 years. It has been upgraded to Baa2 from Baa3 with a stable outlook. It cited country's high growth potential in the years to come, due to its economic and institutional reforms.

What is Sovereign credit rating?

- ✓ A sovereign ratings is reflective of a **country's risk profile** and a ratings upgrade would enhance India's position as an investment destination for foreign investors.
- ✓ It has upgraded India's local and foreign currency issuer ratings to Baa2, a position above the lowest investment grade of Baa3 earlier.
- ✓ This one-level shift from the lowest investment-grade ranking puts India in line with the Philippines and Italy.
- ✓ The firm has changed its **outlook on the country to stable from positive.**
- ✓ While India, now at Baa2, is still behind China, its gap has certainly shrunk to four notches, which is now at A1
- ✓ However, the government's debt is a cause for concern, noted Moody's - with the debt to GDP ratio at 66% in 2016 against a comfort level of 44% in this particular rating category.

Why does it matter?

- The rating will lead to boosting India's sentiments globally, leading to greater investment in the country, and reduction in cost of funds.
- It is likely to contribute to a gradual decline in the government debt burden over the medium term.

2.10. Fast-Moving Consumer Goods

Why in News?

The government has written to all major fastmoving consumer goods (FMCG) companies urging them to immediately revise the maximum retail price on all their products that have seen a reduction in tax rates as decided by the Goods and Services Tax Council.

More about FMCG

- ✓ These are **consumer goods products** that **sell quickly** at **relatively low cost** – items such as milk, gum, fruit and vegetables.
- ✓ Many fast moving consumer goods have a **short shelf life**, either as a result of high consumer demand or because the product deteriorates rapidly.
- ✓ **Packaging is critical for FMCGs**. The logistics and distribution systems often require better packaging to maximize efficiency.
- ✓ **Amul, Brittania, Asian Paints** etc. are some of the Indian FMCG companies.

2.11. Exchange Traded Funds

Why in news?

A combination of factors such as lower inflows into exchange-traded funds (ETFs) and introduction of the Goods and Services Tax (GST) in India led to a fall in the global demand for gold in the third quarter of the current calendar year.

Key points

- ✓ An ETF is **a type of fund** that owns the underlying assets and is divided into different shares.
- ✓ Gold ETF is an important instrument in the National Stock Exchange.
- ✓ The shares of different companies are pooled together and these cumulated shares form the asset base of ETFs.
- ✓ Then the cumulated assets are divided into different units and these units are listed and traded in the stock exchange as ETFs.
- ✓ The ETFs trading value is based on the net asset value of the underlying stocks that it represents.
- ✓ Government has decided to use ETF mechanism to disinvest the shares of public sector companies.

2.12. Tricyclazole

- ✓ It is a **pesticide used in Rice varieties** such as Basmati. It is used against **leaf and neck blast disease in paddy**.
- ✓ Recently, the EU Commission has ordered basmati manufacturers to slash levels of the pesticide Tricyclazole to a hundredth of its current legal level.
- ✓ Such strict import restrictions affect Indian Agriculture Sector. India has taken up the matter with the German Food and Agriculture Minister.

2.13. Composition Scheme

Why is in news?

Recent GST council meeting has decided to increase the threshold for composition scheme to Rs 1.5 crore.

What is it?

✓ The composition levy is **an alternative method of levy of tax** designed **for small taxpayers** whose turnover is up to Rs. 1.5 crore.

Rationale

✓ Large organizations have the requisite resources and expertise to address GST compliance requirements.
✓ On the flip side, many start-ups and Small and Medium Enterprises (SMEs) may struggle to comply with these provisions.
✓ To resolve such scenarios, the government has introduced Composition Scheme under GST.

Features

✓ It is an **optional scheme.**
✓ Eligible person opting to pay tax under this scheme can **pay tax at a prescribed percentage of his turnover every quarter**, instead of paying tax at normal rate in every month.

Who can opt composition scheme?

✓ Covers businesses dealing only in Goods and restaurant services.

Except (following can't opt)

✓ Supplier of service other than restaurant services
✓ Non-resident
✓ E-commerce operator
✓ Manufacturing of pan masala, tobacco, ice cream etc.

Condition for availing composition scheme

✓ No Input tax credit
✓ Taxpayer can make only intrastate supply
✓ Dealer cannot supply exempted goods
✓ Taxpayer has to mention the word 'composition taxable person' on every bill of supply and mention on the notice or signboard displayed at place of business
✓ Taxpayer has to pay the normal rate under reverse charge mechanism

GST rates for composition scheme

✓ 1% for traders, suppliers and manufactures
✓ 5% for restaurant services on turnover
✓ Payment of tax or filing of return on Quarterly basis

Watch Video on GST Composition Scheme in NEO IAS Youtube Channel.

2.14. E-Way Bill

Why in News?

Executive director of DTDC Express expressed concern over government's plan to introduce E-way bill system as part of the GST regime and its' possible impact on the Logistic sector.

What is E-way bill?

- ✓ It is a GST provision, requiring any good more **than Rs. 50,000 in value to be pre-registered online before it can be moved.**
- ✓ As per the provision, GSTN would generate e-way bills that will be valid for 1-20 days, depending on distance to be travelled.
- ✓ It is expected **to ease inter-State traffic movement** under the GST regime
- ✓ Although the Goods and Services Tax (GST) has been rolled out from July 1, a centralized e-way bill could not be implemented as the rules and forms were not ready.
- ✓ Therefore, the e-way bill system shall be introduced in a staggered manner with effect from 1st of January, 2018 and shall be rolled out nationwide with effect from 1st of April,2018.

2.15. Capital Infusion in Public Sector Banks

Why in news?

The government has announced a capital infusion in public sector banks amounting to Rs. 2.11 lakh crore over financial years 2017-18 and 2018-19. It will be done through the issue of recapitalisation bonds. Of this sum, Rs. 1.35 lakh crore will come through recap bonds, 18,000 crore from the budget and 58,000 crore that banks can raise from the market.

What is it?

The process typically is that the government issues the bonds to banks in lieu of capital. After lenders subscribe to these bonds, the money raised by the government is used to infuse fresh equity into the banks. Except the interest that has to be paid, there will not be an additional burden on the government.

How it helps?

The move will strengthen the capital adequacy of public sector banks, which is required **for provisioning for bad loans and adhering to the Basel-III framework.**

Know the Important terms:
Provisioning in Banking sector:

To tackle the NPA or bad assets problem, RBI has designed several mechanisms. An important one among them is the Provisioning norms. It is one of the mechanism designed by RBI to tackle the NPA Problem. Provisioning is a part of the RBI's prudential regulation norm.

Under provisioning, banks have to **set aside or provide funds to a prescribed percentage of their bad assets**. The percentage of bad asset that has to be 'provided for' is called **provisioning coverage ratio**. The provisioning coverage ratio is the percentage of bad assets that the bank has to provide for (keep money) from their own funds –most probably profit. For example, if the provisioning coverage ratio is 70% for a particular category of bad loans, banks have to set aside funds equivalent to 70% those bad assets out of their profits (in most cases).

Basel norms:

Basel norms are banking regulation codes instituted by **Bank of International Settlement,** which is headquartered in Basel. BIS fosters co-operation among central banks with a common goal of financial stability and common standards of banking regulations. Basel guidelines refer to broad supervisory standards formulated by this group of central banks- called the **Basel Committee on Banking Supervision (BCBS).** The purpose of Basel Norms is to ensure that financial institutions have enough capital on account to meet obligations and absorb unexpected losses.

2.16. Merchandise Export from India Scheme

Why in news?

The Directorate General of Foreign Trade (DGFT) raised rates for incentives under the Merchandise Exports from India Scheme (MEIS) for two subsectors of Textiles Industry from two percent to four percent of value of exports.

More about the scheme
- ✓ MEIS is a major export promotion scheme of GOI implemented by the **Ministry of Commerce and Industry.**
- ✓ The Government of India has introduced Merchandise Exports from India Scheme (MEIS) through the **Foreign Trade Policy (FTP) 2015-20.**

Objective
- ✓ It seeks to promote export of notified goods manufactured/ produced in India. Many export promotion schemes have been **merged into a single scheme**, namely Merchandise Exports from India Scheme (MEIS).

How it is used?
- ✓ Rewards under MEIS are payable as a percentage (2, 3 or 5%) of covered exports, by way of the MEIS **duty credit scrip.** The scrip can be transferred or used for payment of a number of duties/taxes including the customs / excise duty / service tax.
- ✓ Incentives under MEIS are available to units located in SEZs also.
- ✓ The reward/incentives provided by the Government makes the exporters competitive in the international market including **Europe, The United States of America and Africa.** These three markets are covered under the scheme for all notified 5012 tariff lines.

2.17. Logistics Sector and Infrastructure Status

Why in News?
The Logistics Sector has been granted Infrastructure status.

Why important?
- ✓ It will enable the Logistics Sector to avail infrastructure lending at easier terms with enhanced limits and be eligible to borrow from India Infrastructure Financing Company Limited (IIFCL).
- ✓ "Logistics Infrastructure" is included " in the **Harmonized Master List of Infrastructure Sub-sectors** by insertion of a new item in the renamed category of **'Transport and Logistics'.**
- ✓ Other categories in the Harmonized Master List of Infrastructure Sub-sectors are **Energy, Water Sanitation, Communication and Social and Commercial Infrastructure.**

2.18. National Power Portal (NPP)

Why in news?
Ministry Power and New & Renewable Energy, launched the National Power Portal (NPP).

What is it?
- ✓ It is a **Centralized Platform for Collation and Dissemination of Indian Power Sector Information**
- ✓ Facilitates online data capture/ input (daily, monthly, annually) from generation, transmission and distribution utilities in the country and disseminate Power Sector Information (operational, capacity, demand, supply, consumption etc.) through various analysed reports, graphs, statistics for generation, transmission and distribution at all India, region, state level for central, state and private sector.
- ✓ The Nodal Agency for implementation and operational control is The Central Electricity Authority of India (CEA).
- ✓ The stakeholders of NPP are Ministry of Power (MoP), CEA, PFC for Integrated Power Development Scheme (IPDS), REC for Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY), other power sector utilities in government as well as private sector.
- ✓ Conceptualized, designed and developed by National Informatics Centre (NIC).
- ✓ It standardized data parameters and formats for seamless exchange of data between NPP and respective systems at utilities.

Features

- ✓ Developed to disseminate analyzed information about the sector through GIS enabled navigation.
- ✓ Single point interface for all Power Sector Apps launched previously by the Ministry, like TARANG, UJALA, VIDYUT PRAVAH, GARV, URJA, MERIT.
- ✓ Available 24x7 and ensures effective and timely collection of data.

2.19. India Road Assessment Programme (INDIARAP)

Why in news?

The India RAP programme is being supported by FedEx Express and will be hosted by the Asian Institute of Transport Development.

Aim

- ✓ To rate highways' safety levels
- ✓ eliminate the most unsafe roads
- ✓ assess existing highways and promote the use of better design to make roads safer

Features

- ✓ The ratings are assigned on the basis of the level of safety which is 'built-in' to a road for vehicle occupants, motorcyclists, bicyclists and pedestrians
- ✓ Five-star roads are the safest while one-star roads are the least safe.
- ✓ India RAP teams have so far undertaken the star rating assessment of over 10,000km of roads across various States in India.

2.20. Jal Marg Vikas Project on Ganga

Why in news

The Inland Waterways Authority of India (IWAI) has awarded a contract to a reputed consultant for technical support services for the **Multi-Modal Terminal at Haldia** and new Navigation Lock at Farakka which are part of the **Jal Marg Vikas Project (JMVP) on National Waterway -I (River Ganga).**

The Jal Marg Vikas Project (JMVP)

- ✓ **By Ministry of Shipping**
- ✓ **On National Waterway-1** (passing through **Uttar Pradesh, Bihar, Jharkhand and West Bengal**)
- ✓ Implemented with the financial and technical support of the **World Bank.**
- ✓ Development of fairway with 3 meters depth between **Varanasi and Haldia** (Phase-I) covering a distance of 1380 km.
- ✓ The project would enable commercial navigation of vessels of 1,500-2,000 deadweight tonnes capacity along a 1,380-km stretch.
- ✓ Major works being taken up under JMVP are development of fairway, Multi-Modal Terminals, strengthening of river navigation system, conservancy works, modern River Information System (RIS), Digital Global Positioning System (DGPS), night navigation facilities, modern methods of channel marking etc.

River Information Service System

- ✓ Inland Waterways Authority of India will set up a **River Information Service System on NW-1.**
- ✓ It enables safe and efficient inland water transport by avoiding risks such as collision among the ships or with bridges.

2.21. Open Access and Mission 41k In Indian Railway

What is in news?

Indian Railways accomplishes major savings in its 'ElectricTraction Energy Bill'. The feat was achieved by adopting innovative strategy of procuring power under open access arrangements. It will also contribute to IR's Mission 41K.

Open Access
- ✓ Open access allows large users of power — typically having connected load of 1 megawatt (Mw) and above — to buy cheaper power from the open market.
- ✓ The idea is that the customers should be able to choose among a large number of competing power companies–instead of being forced to buy electricity from their existing electric utility monopoly.
- ✓ Power is presently being sourced by Indian Railway through Open Access route in 7 states namely Maharashtra, Gujarat, M.P, Jharkhand, Rajasthan, Haryana and Karnataka and DVC area.

Mission 41k
- ✓ In January 2017, Railways introduced Mission 41k to save Rs. 41000 crore in the next decade in Railways' energy costs.

2.22. Fame Scheme

Why in News?

The government plans to set up a committee for an institutional framework on large scale adoption of electric vehicles in India as a viable clean energy mode. Besides, It has recently invited proposals from cities with population of above 10 lakh for extending grants under the **FAME India (Faster Adoption and Manufacturing of Electric and Hybrid Vehicles in India) scheme** to promote large scale adoption of EVs (electric vehicles) in multi-modal public transport.

More about FAME Scheme
- ✓ Government of India has notified FAME India Scheme [Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India] with the objective **to support hybrid/electric vehicles market development and Manufacturing eco-system.**
- ✓ It is initiated **by Department of Heavy Industry.**

Focus Areas
- ✓ The scheme has **4 focus areas:**
    - o Technology development
    - o Demand Creation
    - o Pilot Projects
    - o Charging Infrastructure

Coverage
- ✓ The FAME India Scheme is aimed at incentivizing **all vehicle segments** i.e. 2 Wheeler, 3 Wheeler Auto, Passenger 4 Wheeler Vehicle, Light Commercial Vehicles and Buses.
- ✓ The scheme covers Hybrid & Electric technologies like **Strong Hybrid, Plug in Hybrid & Battery Electric Vehicles** (Subsidies for Mild Hybrid are discontinued from last April).

2.23. Coastal Berth Scheme and Sagarmala

Why in news?

The Ministry of Shipping has taken up projects worth Rs 2,302 crore for financial assistance under the **Coastal Berth Scheme of the flagship Sagarmala Programme.**

The Coastal Berth Scheme

The Coastal Berth Scheme aims to provide financial support to ports or state governments for creation of infrastructure for movement of cargo and passenger by **sea or national waterways.**

Sagarmala

✓ Sagarmala project aims to promote **port-led direct and indirect development** and to provide infrastructure to transport goods to and from ports quickly, efficiently and cost-effectively.

✓ The Sagarmala initiative will address challenges by focusing on three pillars of development:
   o Supporting and enabling **Port-led Development** through appropriate policy and institutional interventions and collaboration for integrated development
   o **Port Infrastructure Enhancement,** including modernization and setting up of new ports
   o **Efficient Evacuation to and from hinterland.**

✓ **A National Sagarmala Apex Committee (NSAC)** is envisaged for overall policy guidance and high level coordination which is chaired **by the Minister in charge of Shipping.**

✓ **Sagarmala Coordination and Steering Committee (SCSC)** shall be constituted under the chairmanship of the Cabinet Secretary.

2.24. Price Stabilization Fund

What is in news?

Price Stabilization Fund Management Committee (PSFMC) decides to import onions through Government agency.

About the scheme

✓ It is designed to regulate the price volatility of **Onion, Potato and Pulses.**

✓ The Price Stabilization Fund (PSF) was set up in 2014-15 with a corpus of **Rs.500 Crore.**

✓ The scheme is run by **Department of Consumer Affairs (DOCA).**

✓ The Price Stabilization Fund will be managed centrally by a Price Stabilization Fund Management Committee (PSFMC) headed by Secretary, Consumer Affairs.

✓ The PSF will be maintained as a Central Corpus Fund by Small Farmers Agribusiness Consortium (SFAC), a society promoted by Ministry of Agriculture.

2.25. Rasgulla and Geographical Indication Tags in 2017

GI Tags this year

West Bengal has finally won the battle for the Geographical Indication or GI tag for rasgulla, (or rosogolla, if you're Bengali), leaving the other contender Odisha behind.

Indian Patent Office has awarded seven GI Tags this year:

GI Product	State
Pochampally Ikat	Telangana
Gobindobhog rice	West Bengal
Tulaipanji rice	West Bengal
Durgi stone carvings	Andhra Pradesh
Etikoppaka toys	Andhra Pradesh
Banaganapalle mangoes	Andhra Pradesh
Chakshesang shawl	Nagaland

What is GI Tag?

- A GI is primarily **an agricultural, natural or a manufactured product** (handicrafts and industrial goods) originating from a definite geographical territory.
- The name conveys an assurance of quality and distinctiveness which is essentially attributable to the fact of its origin in that defined geographical locality, region or country.
- Under Articles 1 (2) and 10 of the **Paris Convention for the Protection of Industrial Property**, geographical indications are covered as an element of IPRs.
- They are also covered under Articles 22 to 24 of the **Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement**, which was part of the Agreements concluding the Uruguay Round of GATT negotiations.
- The Indian Parliament passed the **Geographical Indications of Goods (Registration and Protection Act) in December 1999** which aimed at providing a registration and also protection of GI of the goods in India.
- This Act is administered by the Controller General of Patents, Designs and Trade Marks, who is also the Registrar of Geographical Indications.
- It is used for **agricultural, natural and manufactured goods.**

2.26. Dairy Development Schemes

Why in news?

Union Agriculture & Farmers' Welfare Minister on the occasion of National Milk Day said that since last 15 years, *India continues to be the largest producer of milk in the world* and explained government measures in the diary sector.

Government schemes

1. *Rashtriya Gokul Mission:* Objectives of the program are:
   - development and conservation of indigenous breeds
   - undertake breed improvement programme for indigenous cattle breeds
   - enhance milk production and productivity;
   - upgrade nondescript cattle using elite indigenous breeds like Gir, Sahiwal, Rathi, Deoni, Tharparkar, Red Sindhi.
   - distribute disease free high genetic merit bulls for natural service.

2. **Gokul grams:** is an initiative to establish **Integrated Indigenous Cattle Centres** or Gokul Grams in the breeding tracts of indigenous breeds. It will be established in:
   - the native breeding tracts and
   - near metropolitan cities for housing the urban cattle.

3. **National mission on bovine productivity:** Launched in November 2016 with the aim of **enhancing milk production and productivity** and thereby make dairying more remunerative to the farmers. It has following components:
   - **Pashu Sanjivni –** identification of animals in milk using UID, issuing health cards to all animals in milk and uploading data on INAPH data base;
   - Advance reproductive Technique

- o **Creation of e-pashuhaat portal** - The e-pashuhaat portal has been launched for linking farmers and breeders of indigenous breeds
- o Establishment of National Bovine Genomic Centre for Indigenous Breeds (NBGC-IB):
4. **Dairy Processing & Infrastructure Development Fund** (DIDF): This is a scheme for dairy cooperative sector.
   a. It has been initiated with an outlay of **Rs.10881 crore.**
   b. This scheme would focus on:
      - o creation of additional milk processing infrastructure
      - o chilling infrastructure through setting up of Bulk Milk Coolers.
      - o providing Electronic milk adulteration testing equipment
      - o facilities for manufacturing value added products.

5. *National Programme for Bovine Breeding:* is being implemented for enhancing productivity of milch animals through **extension of Artificial Insemination (AI)** coverage. This is done through establishment of **Multi Purpose AI Technicians in Rural India (MAITRIs);** strengthening of existing AI centres; monitoring of AI etc.
6. Two "**NATIONAL KAMDHENU BREEDING CENTRES**" one each in Andhra Pradesh and Madhya Pradesh are being setup for conservation of indigenous breeds.
7. **'Gopal Ratna Award'** : for upkeep of the best dairy animals of indigenous breeds.
8. **'Kamdhenu Award'** : for institutions maintaining best herd of indigenous breeds.

INSTITUTIONS

2.27. Monetary Policy Committee

Why in news?

The October monetary policy of the RBI marks the first year of the monetary policy committee from October 2016.

More about MPC

- ✓ The Monetary Policy Committee (MPC) is a committee of the **Reserve Bank of India headed by its Governor to fix the interest rate** to contain inflation.
- ✓ Monetary Policy Committee is defined by the **Reserve Bank of India Act, 1934** and is constituted the same Act.
- ✓ The MPC replaced the earlier system where the RBI governor had complete control over monetary policy decisions.
- ✓ A Committee-based approach will add lot of value and transparency to monetary policy decisions.

Composition

- ✓ Altogether, the MPC will have six members, - the RBI Governor (Chairperson), the RBI Deputy Governor in charge of monetary policy, one official nominated by the RBI Board and the remaining three members would represent the Government of India.
- ✓ These Government of India nominees are appointed by the Central Government based on the recommendations of a search cum selection committee chaired by the **cabinet secretary.**

2.28. National Anti-Profiteering Authority

Why in news?

Union Cabinet has approved the creation of the National Anti-profiteering Authority (NAA).

Background

- ✓ The "anti-profiteering" measures enshrined in the GST law provides an institutional mechanism to ensure that the full benefits of input tax credits and reduced GST rates on supply of goods or services flow to the consumers.
- ✓ This institutional framework comprises the NAA, a Standing Committee, Screening Committees in every State and the Directorate General of Safeguards in the Central Board of Excise & Customs (CBEC).

What is it??

✓ It is the apex level body, mandated **to ensure that the benefits of the reduction in GST rates on goods or services are passed on to the ultimate consumers** by way of a reduction in prices.

✓ Headed by a senior officer of the level of Secretary to the Government of India with four Technical Members from the Centre and/or the States.

✓ A five-member committee, headed by Cabinet Secretary, comprising Revenue Secretary, CBEC Chairman and chief secretaries from two states, has been entrusted to finalise the chairman and members of the authority.

✓ The authority will have a **sunset date of two years** from the date on which the chairman assumes charge. The chairman and the four members of the authority have to be less than 62 years.

✓ Affected consumers may apply for relief to the Screening Committee in the particular State.

Procedures

✓ In case the complaints with 'All India' nature, the application may be directly made to the Standing Committee.

✓ After forming a prima facie view that there is an element of profiteering, the Standing Committee shall refer the matter for detailed investigation to the Director General of Safeguards, CBEC, which shall report its findings to the NAA.

✓ In the event the NAA confirms it, it has the authority to order the supplier / business concerned to reduce its prices or return the undue benefit availed by it along with interest to the recipient of the goods or services.

✓ If the undue benefit cannot be passed on to the recipient, it can be ordered to be deposited in the Consumer Welfare Fund.

✓ In extreme cases, the NAA can impose a penalty on the defaulting business entity and even order the cancellation of its registration under GST.

2.29. Bureau of Indian Standard (BIS) Act

Why in news?

The first meeting of the Governing Council of BIS is convened after enforcement of the new BIS Act 2016.

Features of the Act

Various provisions under the act are

✓ Establishing the Bureau of Indian standards (BIS) as the **National Standards Body of India**

✓ Allowing multiple types of **conformity assessment schemes**;

✓ Enabling the Government to bring under the **mandatory certification regime** such goods, article, process system or service which it considers necessary from the point of view of public interest; human, animal, or plant health, safety of the environment, prevention of unfair trade practices, and national security;

✓ To enable the Government to make **mandatory hallmarking of precious metal articles**.

✓ To provide for **recall of products** bearing the Standard Mark, but not conforming to relevant Indian Standards; and

✓ To **strengthen penal provisions**, enable compounding of offences, and also make certain offences as cognizable.

✓ To appoint any authority/agency, in addition to the BIS, to verify the conformity of products and services to a standard and issue certificate of conformity.

2.30. The Indian Labour Conference (ILC)

Why in news?

Union Minister of State (I/C) for Labour & Employment, writes to Chief Ministers of all states to establish a tripartite mechanisms at State Level in the model of **Indian Labour Conference & Standing Labour Committee** working effectively since 1942.

What are Indian Labour Conference & Standing Labour Committee?
- ✓ The Indian Labour Conference (ILC) is the apex **level tripartite consultative committee (Labour organizations, employers and government)** in the Ministry of Labour & Employment **to advise the Government on the issues concerning working class of the country.**
- ✓ The Standing Labour Committee (SLC), a tripartite body, is a **pre-cursor to the Indian Labour Conference (ILC).**
- ✓ As a matter of practice, and to maintain continuous dialogue with social partners, meetings of these apex bodies are convened **once in a year** to discuss the topical issues concerning labour.
- ✓ All the 12 Central Trade Union Organisations, Central Organisations of employers, all State Governments and Union Territories and Central Ministries/Departments concerned with the agenda items, are the members of the ILC and SLC.

2.31. Global Enterprise Summit (GES)

Why in News:
Prime Minister inaugurates Global Entrepreneurship Summit in Hyderabad.

More about GES
- ✓ The GES is the **preeminent annual gathering of emerging entrepreneurs, investors, and business leaders** around the world.
- ✓ Entrepreneurship Summit (GES) aims to connect top entrepreneurship talent with investors and startup ecosystems across the globe.
- ✓ It is the **eighth annual Global Entrepreneurship Summit.** First GES was in **Washington DC in 2010.**
- ✓ It is hosted by **Niti Ayog in Partnership with US Government**
- ✓ This year is the **first time GES will be hosted in South Asia**.
- ✓ This year, the focus will be on women entrepreneurs and the tremendous potential women bring to entrepreneurship. Therefore this year's theme is **"Women First, Prosperity for All".**

> **Mitra Robot**
>
> Prime Minister launched **Mitra at GES 2017:** It is a **Made in India Robot** by a Bangalore-based start up. The robot uses facial recognition technology to identify people and can also recognise several languages.

2.32. Technology and Innovation Support Center (TISC)

Why is in news?
The Department of Industrial Policy and Promotion (DIPP) decided to establish India's second Technology and Innovation Support Center (TISC) at Anna University, Chennai.

About TISC
- ✓ **World Intellectual Property Organization**'s Technology and Innovation Support Center (TISC) program provides innovators in developing countries with access to **locally based**, high quality technology information and related services.
- ✓ It helps them to exploit their innovative potential and to create, protect, and manage their Intellectual Property Rights (IPRs).
- ✓ Over 500 TISCs operate worldwide and the first TISC is to be established in **Punjab.**

2.33. Serious Fraud Investigation Office

Why in news?

The Corporate Affairs Ministry has approved filing of prosecution cases by the Serious Fraud Investigation Office against defaulter businessman Vijay Mallya.

More about SFIO

✓ The SFIO functions under the ministry of corporate affairs and takes up for investigation of complex cases having inter-departmental and multidisciplinary ramifications and substantial involvement of public interest.

2.34. World Economic Outlook

Why in News?

As per the World Economic Outlook report India has moved up one position to 126 in terms of GDP per capita of countries, still ranked lower than all its BRICS peers.

World Economic Outlook Report

✓ The World Economic Outlook (WEO) is a survey conducted and published by the **International Monetary Fund.**

✓ It is published **biannually and partly updated two times a year.**

✓ It portrays the world economy in the near and medium context, with projections for up to four years into the future.

✓ WEO forecasts include key macroeconomic indicators, such as GDP, inflation, current account and fiscal balance of more than 180 countries around the globe.

✓ It also deals with major economic policy issues.

✓ Its recent October 2017 report is named as World Economic Outlook - **Seeking Sustainable Growth: Short-Term Recovery, Long-Term Challenges.**

✓ According to the GDP per capita of countries, **Qatar** remains the world's richest on this parameter as per IMF data.

3.1. International Criminal Court

Why in News?

Recently **Burundi** became the first nation to withdraw from the International Criminal Court. A United Nations Commission of Inquiry on Burundi reported in September that it had found evidence of extrajudicial killings, disappearances, arbitrary arrests etc. against Burundi's president.

About ICC

- ✓ The International Criminal Court (ICC) is an **intergovernmental organization** and international tribunal Situated in **The Hauge in Netherlands.**
- ✓ ICC is part of the global justice system since 2002.
- ✓ ICC was established by The Rome Statute.
- ✓ **Role of ICC**: To prosecute and bring to justice those responsible for the worst crimes – **genocide, crimes against humanity, and war crimes.**
- ✓ The court has global jurisdiction.
- ✓ **It is a court of last resort,** intervening only when national authorities cannot or will not prosecute.

The Rome Statute

The Rome Statute of the International Criminal Court is the treaty that established the International Criminal Court (ICC).

- ✓ It was adopted at a diplomatic conference in Rome on in 1998 and it entered into force on 1 July 2002.

Membership

- ✓ As of October 2017, 123 states are party to the statute.
- ✓ **Israel, Sudan, the United States and Russia**—have informed the UN Secretary General that they no longer intend to become states parties and, as such, have no legal obligations arising from their signature of the Statute.
- ✓ 41 United Nations member states including **China and India** have neither signed nor acceded to the Rome Statute.
- ✓ **India** has neither signed nor ratified the Rome Statute on the International Criminal Court (ICC).

Limitations for ICC

- ✓ No retrospective jurisdiction. Can only deal with crimes committed after 1 July 2002.
- ✓ **The court has automatic jurisdiction only for** Crimes committed on the territory of a state which has ratified the treaty; or by a citizen of such a state; or When the United Nations Security Council refers a case to it.

3.2. International Court of Justice

Why in news?

India scored a major diplomatic victory as its nominee to the International Court of Justice (ICJ) Dalveer Bhandari was reelected as one of the 15 Judges of the ICJ.

More about the election

- ✓ This is the first time in over seven decades of the United Nations, that the U.K. will not be represented in the ICJ

- ✓ This is the first time that one of the five permanent members of the UN Security Council lost out to an ordinary member in a race.
- ✓ This is also the first time that one sitting member of the ICJ lost out to another sitting member.
But knowing more on ICJ is important here.

More about International Court of Justice
- ✓ The International Court of Justice (ICJ) is the **principal judicial organ of the United Nations.**
- ✓ It was established in June 1945 by the **Charter of the United Nations.**
- ✓ The seat of the Court is at the **Peace Palace in The Hague (Netherlands)**. Of the six principal organs of the United Nations, it is the **only one not located in New York.**
- ✓ The Court's role is to settle, in accordance with international law, legal disputes submitted to it by States and to give advisory opinions on legal questions referred to it by authorized United Nations organs and specialized agencies.
- ✓ It is assisted by **a Registry,** its administrative organ.
- ✓ Its official languages are **English and French.**
- ✓ The Court is composed of **15 judges,** who are elected for terms of office of **nine years by the United Nations General Assembly and the Security Council**.
  Please note: Do not confuse ICJ with *International Criminal Court and the Permanent Court of Arbitration*. All three are different entities set up for different purposes.

Watch video on ICJ in NEO IAS Youtube Channel.

3.3. United Nations Convention against Torture

Why in news?
The Union government has informed the Supreme Court that it is seriously considering the 273rd Report of the Law Commission, which has recommended that India ratify the United Nations Convention against Torture and pass a law to prevent torture and punish its perpetrators.

More about United Nations Convention against Torture
- ✓ The Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (the "Torture Convention") was adopted by the General Assembly of the United Nations on 10th December 1984.
- ✓ Under the convention torture also includes acts that **cause mental suffering** such as threats against family or loved ones.
- ✓ Convention also establish an **unconditional right of a person not to be expelled**, returned or deported to another country where torture is a likely result.
- ✓ **The committee against torture** is a body of ten independent experts that monitors implementation of the convention.
- ✓ The government of India **signed the Torture convention** in 1997 **but is yet to ratify it.**

3.4. International Solar Alliance (ISA)

Why in news?
Curtain Raiser Event for the Founding Ceremony of the International Solar Alliance (ISA) was held at Bonn, Germany.
What is it?
- ✓ **A treaty-based alliance of 121 prospective solar-rich Member Nations** situated fully or partially between the Tropics.

- Jointly launched on 30 November 2015 by Prime Minister of India, Shri Narendra Modi, and then-President of France.
- On the side lines of the UNFCCC Conference of Parties 21 (CoP21) at Paris, France.

Why is it important?
- There is no specific body in place to address the specific solar technology deployment needs of the solar resource rich countries located between the Tropic of Cancer and the Tropic of Capricorn.
- There is a great amount of sunlight year-round which can lead to cost effective solar power most of them have large agrarian populations.
- Absence of universal energy access, energy equity and affordability are issues common to most of the solar resource rich countries.

Therefore the aim is:
- To provide a **dedicated platform for cooperation among solar resource rich countries.**
- Help achieve the common goals of increasing the use of solar energy in meeting energy needs of prospective ISA member countries in a safe, convenient, affordable, equitable and sustainable manner.

Features
- ISA will become a treaty-based international intergovernmental organisation on 6 December 2017.
- 44 countries have already signed the ISA treaty.
- Three ongoing programmes:
  - **Facilitating affordable finance for solar**
  - **Scaling up solar applications for agriculture**
  - **Promoting solar mini-grids in Member Nations**
- **Common Risk Mitigation Mechanism (CRMM) project** - aimed at de-risking investments into solar energy projects in developing countries, and thereby, encouraging flow of funds into the sector.

3.5. International Energy Agency (IEA)

Why in news?
Union Minister of State (IC) for Power and New & Renewable Energy led the Indian delegation in the International Energy Agency (IEA) Ministerial, being held in **Paris.**

International Energy Agency
- It is a **Paris-based autonomous intergovernmental organization** established in the framework of the **Organisation for Economic Co-operation and Development (OECD).**
- It is formed in 1974, after the wake of 1973 oil crisis.
- The IEA acts as a policy adviser to its member states, but also works with non-member countries including India.
- Please note that India is **not a member of IEA.**

Watch video on International Energy Agency on NEO IAS Youtube Channel.

3.6. International Atomic Energy Agency (IAEA)

Why In news?
- The International Atomic Energy Agency (IAEA) organized an International Conference on Physical Protection of Nuclear Material and Nuclear Facilities in Vienna, Austria, from 13 to 17 November 2017.

More about IAEA

Objectives

✓ to foster the exchange, among competent authorities, facility operators, shippers and carriers, and technical support organizations, of information, practices and experiences related to the physical protection of nuclear material and facilities, including nuclear material in transport.

✓ World's central intergovernmental forum for scientific and technical co-operation in the nuclear field.

✓ Works for the safe, secure and peaceful uses of nuclear science and technology, contributing to international peace and security and the United Nations' Sustainable Development Goals.
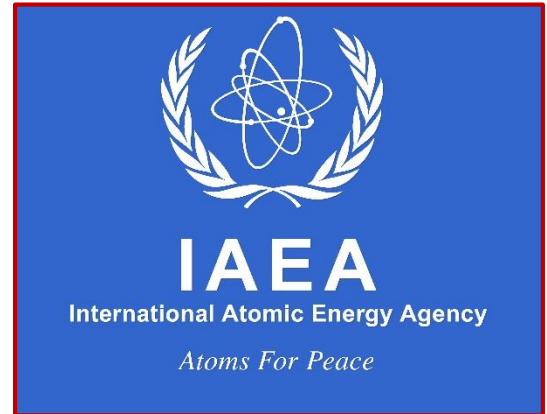
Organization

✓ The IAEA was created in 1957 in response to the deep fears and expectations generated by the discoveries and diverse uses of nuclear technology.

✓ The Agency was set up as the world's "Atoms for Peace" organization within the **United Nations family.**

✓ Its' headquarters is in **Vienna, Austria.**

3.7. UN ESCAP and Incheon Strategy

Why in news?

Union Minister of Social Justice & Empowerment will be leading the Indian delegation to attend the Mid-Point review meeting of Asia and Pacific Decade for Persons with Disabilities, 2013-2022 in Beijing. The main objective of the meeting is to review the progress with regard to Incheon Strategy of The United Nations Economic and Social Commission for Asia and the Pacific (ESCAP).

Incheon Strategy

✓ The Incheon Strategy provides the Asian and Pacific region, and the world, with the **first set of regionally agreed disability-inclusive development goals.**

✓ The Incheon Strategy comprises 10 goals, 27 targets and 62 indicators.

✓ The Incheon Strategy builds on the **Convention on the Rights of Persons with Disabilities and the Biwako Millennium Framework for Action** and **Biwako Plus Five** towards an Inclusive, Barrier-free and Rights-based Society for Persons with Disabilities in Asia and the Pacific.

ESCAP

✓ The United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) is the regional development arm of the United Nations for the Asia-Pacific region.

✓ It is Made up of 53 Member States (including Russia, New Zealand, Turkey) and 9 Associate Members.

✓ This makes ESCAP the most comprehensive of the United Nations five regional commissions.

3.8. The Comprehensive and Progressive Agreement for the Trans-Pacific Partnership

Why in news?

A new trade agreement has been finalized between **Pacific Rim Countries.**

About CPATPP

✓ 11 Countries which were part of Trans-Pacific Partnership Agreement "agreed on the core elements" of a deal at the sidelines of the APEC summit in the Vietnamese city of Danang.

- United States had arbitrarily pulled out of TPP earlier. Therefore, this agreement does not include United States.
- These countries are **Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, Peru, Singapore, Viet Nam, and New Zealand.**

3.9. European Bank for Reconstruction & Development (EBRD)

Why in news?

The Union Cabinet has approved India's Membership for European Bank for Reconstruction & Development (EBRD).

More about the Bank

- The European Bank for Reconstruction and Development (EBRD) is an **international financial institution founded in 1991.**
- Membership of EBRD would enhance India's international profile and promote its economic interests. It will also provide access to EBRD's Countries of Operation and sector knowledge.
- The EBRD is owned by **66 countries from five continents**, as well as the **European Union and the European Investment Bank.**
- As a multilateral developmental investment bank, the EBRD uses investment as a tool to build market economies.
- Biggest shareholder of ERBD is United States.

Note: The EBRD is not to be confused with the European Investment Bank (EIB), which is owned by EU member states and is used to support EU policy. EBRD is also distinct from the Council of Europe Development Bank (CEB).

3.10. Quad and Indo Pacific Cooperation

Why in news?

India, US, Japan, Australia Hold First Quad Talks on Indo-Pacific Cooperation ahead of ASEAN Summit in Manila, Phillipines.

QUAD

- QUAD is a regional coalition **(Quadrilateral Formation)** of **four major democracies ie. USA, India, Japan and Australia.**
- It is based on their converging vision and values for promotion of peace, stability and prosperity in an increasingly inter-connected region that they share with each other and with other partners.
- The quadrilateral is **seen to counter China's aggressive maritime expansion under its Belt and Road initiative.**

Aim

- Promote free, open, prosperous and inclusive Indo-Pacific
- Addressing common challenges of terrorism and proliferation linkages impacting the region
- Enhance connectivity
- Promote free trade and defence cooperation across a stretch of ocean from the South China Sea, the Indian Ocean and all the way to Africa

3.11. Balfour Declaration – 1917

Why in news?

Balfour declaration centenary – 100th anniversary, attended by Israel President Netanyahu in London.

State of Palestine protested against it.

What is Balfour declaration?

✓ It is a Public statement issued by the British government during WW I.

✓ British Govt. announced its support for the establishment of a "national home for the Jewish people" in Palestine.

✓ Made (in form of a 67 word letter) on November 2, 1917, by UK's then Foreign Secretary Arthur Balfour to Lord Walter Rothschild, a leader of the British Jewish community.

3.12. Hezbollah Movement

Why in News?

Lebanese Prime Minister Saad Hariri is gone missing after he travelled to Saudi Arabia. Hezbollah movement, part of his governing coalition at home, charged that the Saudis were holding him against his will.

About Hezbollah

✓ Hezbollah - the Party of God - is a Shia Islamist political, military and social organisation that wields considerable power in **Lebanon.**

✓ It enjoy the patronage of Iran government.

✓ In early 2016, Saudi Arabia led Gulf countries and the Arab League to declare Hezbollah a terrorist group.

3.13. South China Sea

Why in news?

The South China Sea has been at the centre of multilateral problems at the ASEAN level.

South China Sea

✓ The South China Sea is a **marginal sea that is part of the Pacific Ocean that extends from the Strait of Malacca in the southwest, to the Strait of Taiwan in the northeast.**

✓ Countries of the South China Sea are **China, Taiwan, Philippines, Malaysia, Brunei, Indonesia, Singapore, Cambodia, Thailand, and Vietnam.**

✓ It is a **rich source of hydrocarbons and natural resources.**

✓ Global trade worth more than $5 trillion pass through the sea every year.

✓ The South China Sea has been a conflict ridden area due to territorial claims by different countries.
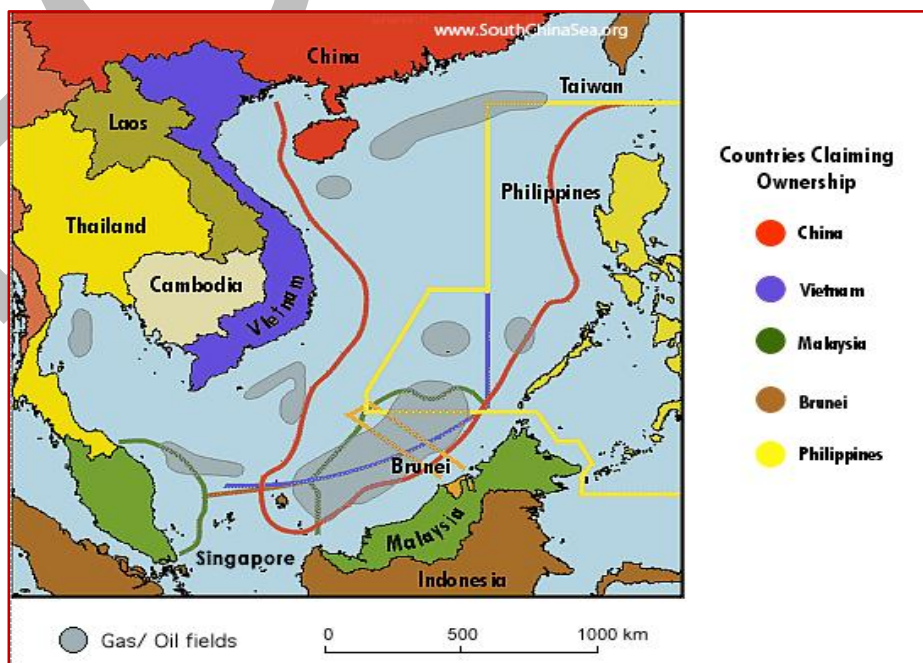
Islands in South China Sea

There are two groups of island in the South China Sea:

✓ **The Paracels Islands**: northwest corner of the sea (claimed by China, Vietnam, and Taiwan.).

- **The Spratly Islands**: southeast corner of the sea (claimed by Taiwan, Vietnam, the Philippines, China, and Malaysia).
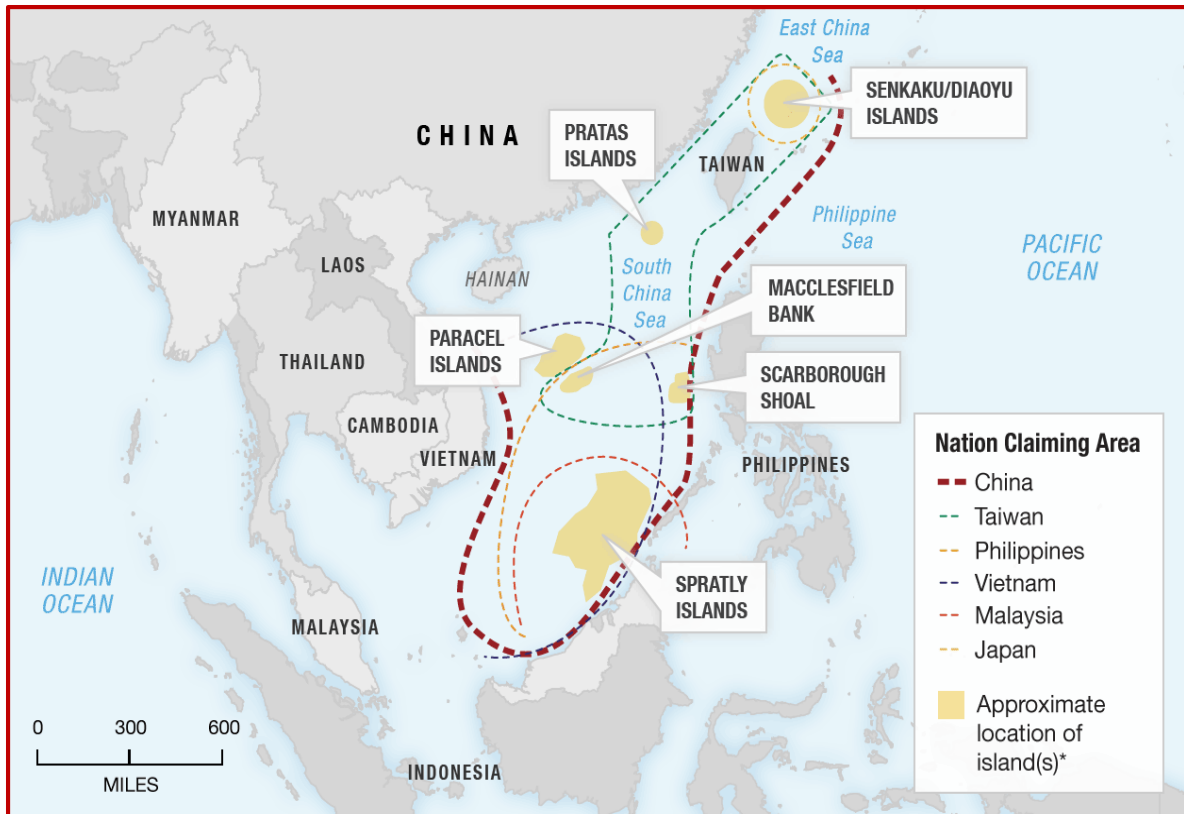
3.14. Peace Clause

What is in news?

Official sources said that in the upcoming Buenos Aires WTO Ministerial, India would fight to ensure that at least the 'Peace Clause' is made the permanent solution for public stocktaking of developing countries.

What is peace clause?
- Peace Clause is a term that is related to **food security negotiations in WTO.**
- Peace clause means that no country would be legally barred from food security programmes even if the subsidy breached the limits specified in the WTO agreement on agriculture.
- This 'peace clause' was expected to be in force for four years until 2017, by which time the WTO members hope to find a permanent solution to the problem.
- Accepting a temporary peace clause tantamount to admitting that the subsidy programmes in India and other developing nations violate global trade norms.

3.15. ASEAN Summit

Why in news

The 31st The Association of Southeast Asian Nations (ASEAN) summit began in Manila, Philippines.

More about ASEAN
- **The Association of Southeast Asian Nations, or ASEAN,** was established in the year **1967 in Bangkok, Thailand,** with the signing of the ASEAN Declaration **(Bangkok Declaration).**
- ASEAN **Secretariat is in, Jakarta, Indonesia.**
- The motto of ASEAN is **"One Vision, One Identity, One Community".**

Membership

✔ The founding Members of ASEAN are Indonesia, Malaysia, Philippines, Singapore and Thailand.

✔ Brunei Darussalam, Vietnam, Lao PDR, Myanmar and Cambodia joined later with **Cambodia being the last member country to join in 1999.**

✔ India is not a member of ASEAN

ASEAN Summits

✔ **The first ASEAN summit was held in Bali, Indonesia in the year 1976**

✔ **The thirtieth and thirty-first ASEAN Summits – Manila, Philippines in April 2017 and November 2017 respectively.**

✔ Philippines is the Chair of ASEAN for 2017 and the theme of its ASEAN Chairmanship is "Partnering for Change, Engaging the World."

3.16. Bandhan Express

✔ Bandhan Express to resume train services connecting **Kolkata with the industrial town of Khulna**, the third largest city in Bangladesh.

✔ The train service to Khulna had stopped during 1965 India-Pakistan war.

✔ The train is the second between the two countries. **The Maitree Express between Kolkata and Dhaka Cantonment** was flagged off in April 2008.

Other rail-links on Indo-Bangladesh Border
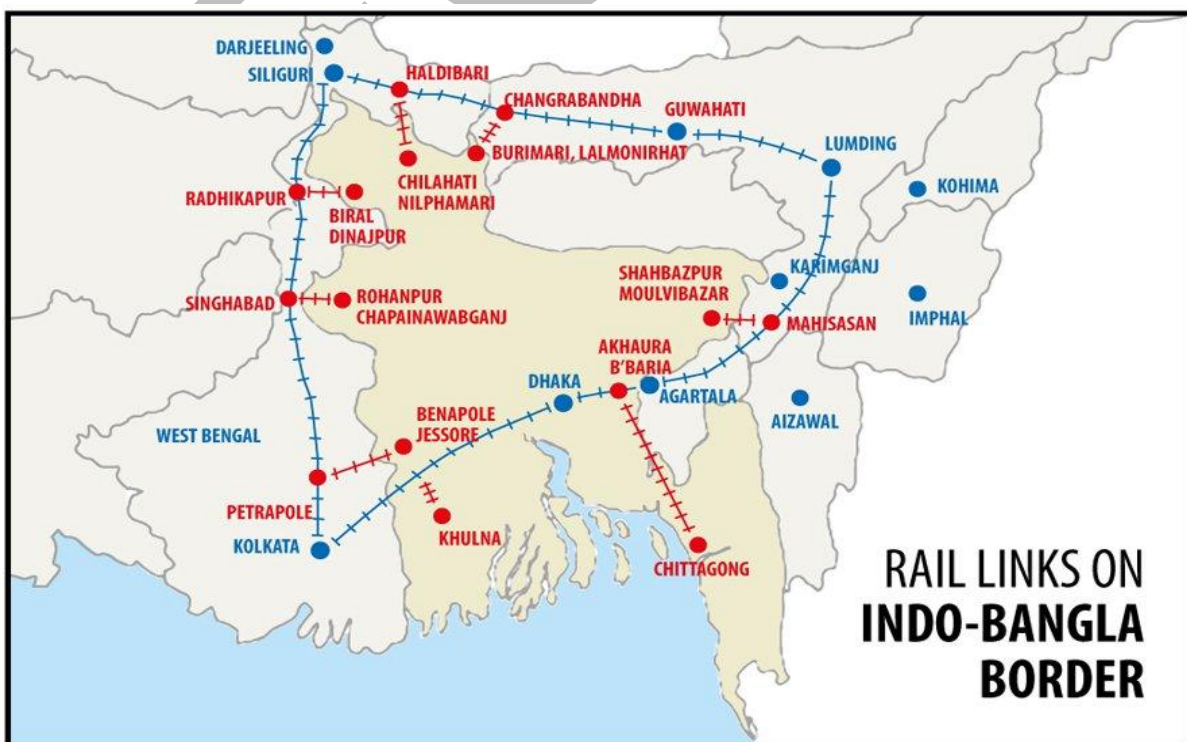
3.17. Global Conference on Cyber Space

Why in news?

The Prime Minister launched the UMANG App – Unified Mobile Application for New-age Governance in the 5th Global Conference on Cyberspace.

More about GCCS

✓ Global Conference on Cyber Space (GCCS) is a prestigious global event where international leaders, policymakers, industry experts, think tanks, cyber wizards etc gather to deliberate on issues and challenges for optimally using cyber space.

✓ The first edition of GCCS was held in **London in 2011.**

✓ An institutional mechanism **GFCE (Global Forum on Cyber Expertise)** was set up to enhance Capacity Building.

✓ Main Theme of GCCS 2017 is "**Cyber4All: A Secure and Inclusive Cyberspace for Sustainable Development**".

3.18. Indira Gandhi Prize for Peace, Disarmament, and Development

Why in news?

Former Prime Minister **Dr. Manmohan Singh** will be the recipient of this year's Indira Gandhi Prize for Peace, Disarmament and Development.

What is it?

✓ Award given out annually.

✓ **To individuals and organisations** in recognition of creative efforts toward promoting **international peace, development** and **a new international economic order.**

✓ Ensuring that scientific discoveries are used for the larger good of humanity, and enlarging the scope of freedom.

✓ Instituted by the **Indira Gandhi Memorial trust** in 1986.

✓ The award comprise of a cash prize of Rs. 25 lakh and a citation.

Previous recipients include the:

Individuals:

✓ Former Soviet leader Mikhail Gorbachev

✓ Former U.S. President Jimmy Carter

✓ Former President of the Czech Republic Vaclav Havel

Organisations:

✓ United Nation's Human High Commissioner for Refugees

✓ ISRO

3.19. International Geological Congress

Why in news?

A high level delegation of the International Union of Geological Sciences (IUGS) visited India to discuss the preparatory aspects of the 36th International Geological Congress (IGC) to be held in Delhi, India in the year 2020.

More about IGC

✓ Described as the Olympics of Geosciences, the IGCs are held **quadrennially under the aegis of the IUGS** through a process of global bidding.

✓ India won the bid in 2012 to host the Congress in 2020.

✓ The win is a remarkable achievement as the event makes **a come back to the Indian soil after nearly 6 decades** much to the excitement of the entire geoscientific community.

- The event is being jointly funded by the Ministry of Mines and Ministry of Earth Sciences with the active support of the Indian National Science Academy (INSA), and the Science Academies of the other neighbouring co-host countries, Bangladesh, Nepal, Pakistan and Sri Lanka.

3.20. India's G20 Sherpa

What is in news?

Shaktikanta Das, former secretary of Department of Economic Affairs (DEA), has been appointed as India's G20 Sherpa for the Development Track of the grouping.

More Details

- There are two tracks in G 20 - **Finance Track and Development Track**. Finance Track is managed by the Secretary (Economic Affairs) as India's Deputy to G20 and the Development Track is coordinated by the Sherpa. The Department of Economic Affairs will provide necessary support to the Sherpa.
- Sherpas, who are representatives of leaders of G20 member countries, coordinate on the agenda of the summit.

4. GEOGRAPHY – PLACES AND PHENOMENONA

PLACES

4.1. Kole Wetlands

Why in news?

Migratory species start to arrive at Kole Wetlands in Kerala.

What is it?

- It is a unique wetlands lying in **Thrissur District in Kerala.**
- The Kole wetlands are low lying tracts located 0.5 to 1m **below Mean Sea Level** (MSL) and remain submerges for about six months in a year.
- It has been recognised as one of India's Important Bird Areas by **BirdLife International**. It has been declared in **Ramsar Convention** for protection and it comes in **Central Asian Flyway of migratory birds.**
- According to studies, there are 241 species of birds like **spot-billed pelican, darter, Oriental darter, black-headed ibis, painted stork, black-bellied tern, cinereous vulture and greater spotted eagle.**

4.2. Chilika Lake

Why in news?

Migratory birds start arriving in Chilika.

More about Chilka

- Chilika Lake in Odisha is Asia's biggest internal salt water pond studded with few tiny islands.
- It is located at the mouth of the **Daya River**, flowing into the Bay of Bengal.
- **Nalabana Bird Sanctuary** inside Chilika host most of this bird congregation.
- Because of its rich bio-diversity and socio-economic importance, Chilika Lake was designated the first Indian wetland of international importance under the **Ramsar Convention** in 1981.
- Migratory birds fly across continents from Caspian Sea, Baikal Lake and remote parts of Russia, Mongolia and Siberia and flock to the marshy lands of the Nalabana Bird Sanctuary inside the Chilika Lake.
- Apart from residents and migratory birds, Chilika Wildlife Sanctuary is also home to Blackbuck, Spotted Deer, Golden Jackals, Hyenas.

✓ It has rich aquatic wildlife also: Chilika Lake sanctuary also houses Prawn, Dolphin, Crab, Crustaceans and Limbless Lizard.

4.3. Gurudongmar Glacier

Gurudongmar glacier in Sikkim recedes one-fourth since 1989, says a study. It will impact hydro-power projects and livelihood of people in Bengal and Bangladesh.

More about the glacier
✓ The Gurudongmar glacier in Sikkim — the source of one of iconic lakes in the world by same name.
✓ It is the main source for **Teesta river**
✓ Gurudongmar like all glaciers in the region is different from other winter accumulating Himalayan snow-sheets. It is summer accumulation type which receives 80% of its snowfall during monsoon months between July and September.

4.4. Mullaperiyar Dam

Why in news?
The dam is frequently in news due to the dispute between Tamil Nadu and Kerala government. Recently, the Tamil Nadu government moved the Supreme Court against the decision of the National Green Tribunal (NGT) allowing Kerala to go ahead with a "mega car parking" project in the water spread area of the Mullaperiyar dam.

More about the Dam
✓ The Mullaperiyar Dam is a masonry gravity dam on the **Periyar River.**
✓ It is located on the **Cardamom Hills of the Western Ghats.**
✓ The Periyar National Park in Thekkady is located around the dam's reservoir.
✓ The dam is located in Kerala on the river Periyar, but is operated and maintained by Tamil Nadu state.
✓ Bone of contention is that the Kerala opposes to provide more water to Tamil Nadu because there is a threat to 120+ years old dam by raising the water level to higher extent.

4.5. Ahmedabad

Why in news?
The chronic air pollution, crushing traffic and chaotic urban sprawl is rapidly eroding the cultural capital, Ahmedabad.

More about Ahmedabad
✓ The Walled City of Ahmedabad was founded by Sultan Ahmed Shah in the 15th century.
✓ It was announced as **India's first World Heritage City on July, 2017 by World Heritage Committee (WHC) of UNESCO**
✓ The walled city of Ahmedabad on the eastern banks of Sabarmati river presents a rich architectural heritage from the sultanate period.
✓ The 5.5 km walled city area with an approximate population of four lakh, living in century old wooden residences in around 600 pols or neighbourhoods, is regarded as a living heritage.
✓ Ahmedabad hosts the towering **Bhadra fort**, the legendary stone latticework of the 16th-century **Sidi Saiyyed mosque**, and countless relics **fusing the unique Hindu and Muslim architectural styles** of its conquerors.

4.6. Catalonian Region

Why in news?

The long-standing conflict in Spain over independence for Catalonia has escalated into a full-blown political crisis. Recently a referendum in Catalonia recommended secession.

Locate Catalonia

✓ It is a **semi-autonomous province** of **Spain** that declared independence from Spain. (Knowing the location is important for prelims.)

✓ Catalonian state is bordering **France** and open out to **Mediterranean Sea.**

4.7. Sinai Peninsula

Why in news?

Gunmen attacked a mosque in Egypt's North Sinai, killing more than 300 worshipper.

Know More about the region – Sinai Peninsula

✓ It is a peninsula in Egypt, the only part of the country located in Asia.

✓ It is situated between the Mediterranean Sea to the north and the Red Sea to the south, and is a land bridge between Asia and Africa.

✓ Sinai has become a tourist destination due to its natural setting, rich coral reefs, and biblical history.

4.8. Burundi

Why in news?

Recently **Burundi** became the first nation to withdraw from the International Criminal Court. A United Nations Commission of Inquiry on Burundi reported in September that it had found evidence of extrajudicial killings, disappearances, arbitrary arrests etc. against Burundi's president.

Locate Burundi

✓ **Burundi**, officially the Republic of Burundi, is a **landlocked country** in the African Great Lakes region of **East Africa**, bordered by Rwanda to the north, Tanzania to the east and south, and the Democratic Republic of the Congo to the west.

4.9. Malacca Strait

Why in News?

India and Singapore agreed on greater cooperation and activity in the Strait of Malacca and the Andaman Sea even as the two countries concluded a wide ranging naval agreement for maritime cooperation including logistical support.

Where is Strait of Malacca?

✓ Straits of Malacca is a narrow, stretch of water between the **Malay Peninsula (Peninsular Malaysia) and the Indonesian island of Sumatra.**

✓ It connects the **Andaman Sea (Indian Ocean) and the South China Sea (Pacific Ocean).**

4.10. Zimbabwe

Why in news?

The army has taken over control in the country of Zimbabwe in Africa.

Zimbabwe- History

✓ Zimbabwe is a country in southern Africa.

✓ It was taken over by Britain in the 1880s and named Southern Rhodesia.

✓ The country was dominated by a white minority who ran everything.

✓ In the 1960s and 1970s, there was a lot of fight went on as the white minority tried to keep power.

✓ But groups representing the black majority won the war in 1980, and changed the country's name to Zimbabwe.

4.11. Mount Agung - Major Volcanoes around the Globe

Why Important?

Mount Agung in Bali, Indonesia is erupted this month and it continues to create havoc in the region. In this context, it will be useful to have a glance through over major volcanoes around the globe.

Major Volcanoes and their region

Volcano	Region	Notes
Mount Vesuvius	Italy	
Krakatoa	An island in Indonesia	
Mount Tambora	Indonesia	
Mount St. Helens Volcano	Washington State, United States	
Eyjafjallajökull	Iceland	Major eruption in 2010
Mount Pinatubo	Philippines	Major eruption in 1991
Mount Etna	Italy	tallest active volcano in Europe, Major eruption in 2014
Mauna Loa	Hawaii,	largest active volcano in the world
Mount Pelée	West Indies	
Cotopaxi	Ecuador	

PHENOMENA

4.12. Typhoon Damrey

Why in news?

Vietnam's deadliest storm this year, Typhoon Damrey, has killed more than 100 people.

More about typhoon

✓ A typhoon is a mature tropical cyclone that develops between **180° and 100°E in the Northern Hemisphere.**
✓ This region is referred to as the **Northwestern Pacific Basin**, and is the **most active tropical cyclone basin on Earth,** accounting for almost one-third of the world's annual tropical cyclones.

4.13. Oceans Melting Greenland (OMG) Campaign by NASA

Why in news?

Oceans Melting Greenland (OMG), a project by NASA will pave the **way for improved estimates of sea level rise** by addressing the question: To what extent are the oceans melting Greenland's ice from below?

More about OMG

✓ **Over a five-year campaign**, OMG will **observe changing water temperatures on the continental shelf surrounding Greenland,** and **how marine glaciers react to the presence of warm, salty Atlantic Water.**
✓ OMG will facilitate improved measurements of the shape and depth of the sea floor in key regions as well.
✓ OMG will use NASA's G-III to fly the Glacier and Ice Surface Topography Interferometer **(GLISTIN-A)** in order to generate high resolution, high precision elevation measurements of Greenland's coastal glaciers during the spring.
✓ Greenland's ice at more risk than thought, according to a recent report of OMG campaign.

4.14. Pacific Shadow-Zone

Why is in news?

New research from an international team has revealed why the oldest water in the ocean in the North Pacific has remained trapped in a **shadow zone around 2km below the sea surface for over 1000 years.**

Important Findings

✓ What we have found is that at around 2km below the surface of the Indian and Pacific Oceans there is a 'shadow zone' with **barely any vertical movement that suspends ocean water in an area for centuries.**

✓ The research suggests the time the ancient water spent below the surface is a **consequence of the shape of the ocean floor and its impact on vertical circulation**.

What is a shadow zone?

✓ The shadow zone is an area of almost stagnant water sitting between the rising currents caused by the rough topography and geothermal heat sources below 2.5km and the shallower wind driven currents closer to the surface.

Watch video on Pacific Shadow Zone in NEO IAS Youtube Channel.

4.15. Iran- Iraq Earthquake

Why in news?

An earthquake on the Iran-Iraq frontier has killed more than 400 and injured more than 4000 in the region. It was felt as far away as the Mediterranean. Seismologists say the magnitude-7.3 quake could well be followed by at least one more large shock. The quake was centred 31 kilometres from the city of **Halabja in east Iraq,** according to the US Geological Survey. It originated 25 kilometres down.

More about the earthquake

✓ The quake was caused by the **Arabian plate moving north and striking the neighbouring Eurasian plate at an oblique angle.**

✓ The two plates converge along a northwest-striking plate boundary in the general vicinity of this earthquake, driving the uplift of the **Zagros mountains in Iran**.

✓ These conditions create quakes that slip over a large fault area, typically at least 65 kilometres long by 25 kilometres wide.

5. SCIENCE AND TECHNOLOGY: CONCEPTS, EVENTS AND INNOVATIONS

CONCEPTS

5.1. Smog

Why in news?

9 killed on smog-covered highway near Delhi in various accident.

What is Smog?

✓ Smog is a **kind of air pollution** that reduce visibility.

✓ Smog is originally named as the **mixture of smoke and fog.**

✓ Smog is consisted **mainly of ozone** which causes cough and burns the eyes.

✓ Along with Ozone, harmful substances like **sulphur dioxide, nitrogen dioxide, carbon monoxide and PM10** are also found in smog.

Where and when does it form?

✓ Smog is often **worst in the mornings,** when there is less air movement.

✓ Cities located in basins surrounded by mountains may have smog problems because the smog is trapped in the valley (Eg: Los Angeles, California, and Mexico City).

✓ Today, most of the smog we see is **photochemical smog.**

Formation of Photochemical smog:

✓ It is produced when **sunlight reacts with nitrogen oxides** and at least **one volatile organic compound (VOC)** in the atmosphere.

✓ Nitrogen oxides come from car exhaust, coal power plants, and factory emissions.

✓ VOCs are released from gasoline, paints, and many cleaning solvents.

✓ When sunlight hits these chemicals, they form airborne particles and **ground-level ozone—or smog.**

The difference between smog and fog:

✓ Fog is a visible mass consisting of cloud water droplets suspended in the air or near the Earth's surface. It can be considered as **a type of low level cloud.**

5.2. Anti-Microbial Resistance (AMR)

Why in News?

Mass-bathing in the Ganga during pilgrimages may be contributing to anti-microbial resistance (AMR), says a government-commissioned report on the threat from AMR.

There was one more news related to AMR this month. Using a small molecule screened from a synthetic library of 8,000 molecules, researchers at the Indian Institute of Technology (IIT) Roorkee have been able to reverse drug resistance and restore the efficacy.

What is AMR?

✓ **Antimicrobial resistance (AMR)** is the ability of a microorganism (like bacteria, viruses, and some parasites) to stop an antimicrobial (such as antibiotics, antiviral and antimalarials) from working against it.

✓ As a result, standard treatments become ineffective, infections persist and may spread to others.

How is AMR?

✓ Antimicrobial resistance occurs naturally over time, usually through genetic changes.

✓ However, the misuse and overuse of antimicrobials is accelerating this process.

- In many places, antibiotics are overused and misused in people and animals, and often given without professional oversight.
- Excessive use of antibiotics in the livestock industry and unchecked discharge of effluents by the pharmaceutical industry.
- In 2014, India was the highest consumer of antibiotics, followed by China and the United States.
- However, the per-capita consumption of antibiotics in India was much lower than in several other high-income countries.

How Bacteria will acquire antibiotic resistance genes?

Two ways 1) by spontaneous mutation or 2) genetic exchange with other bacteria

- Mutation: 4 Different Mechanisms
  - mutations enable the bacteria to produce potent chemicals (enzymes) that inactivate antibiotics
  - eliminate the cell target that the antibiotic attacks.
  - close up the entry ports that allow antibiotics into the cell
  - manufacture pumping mechanisms that export the antibiotic back outside so it never reaches its target.
- Genetic exchange: 3 prominent mechanisms
  - By undergoing a simple mating process called "conjugation"
  - Viruses: The resistance traits from one bacterium are packaged into the head portion of the virus which injects resistance traits into any new bacteria it attacks.
  - Bacteria also have the ability to acquire "naked and free" DNA from their environment.

Will AMR be lost?

- Antibiotic resistance traits can be lost, but this reverse process occurs more slowly. If the selective pressure that is applied by the presence of an antibiotic is removed, the bacterial population can potentially revert to a population of bacteria that responds to antibiotics.

Watch Video on Anti-biotic resistance on NEO IAS Youtube Channel.

5.3. Virtual Network Operator

Why in News?
CEO of Datawind said that government hesitancy to grant licenses under the Virtual Network Operator (VNO) policy is hurting 'Digital India'.

What is Virtual Network Operator?
- Virtual network operators (VNOs) provide **mobile services without owning spectrum or mobile infrastructure.**
- Typically, a VNO buys bulk talk time and bandwidth from a telecom operator and resells that to users **under its own brands.**
- With virtual networks, service providers are not required to duplicate the infrastructure.
- India's Department of Telecommunications opened up licensing to VNOs in 2016 and awarded the first VNO Unified License in May 2017.

5.4. Petcoke and Furnace Oil

Why in news?
The Supreme Court requested all States and Union Territories to move forward towards a nationwide ban on the use of pet coke and furnace oil to power up industries, in a bid to fight pollution.

India's Oil Minister asked state oil firms to boost the supply of gas and alternative fuels in States where petroleum coke and furnace oil are banned due to high emissions. The country has banned use of petcoke and furnace oil in States around New Delhi and in the capital city to rein in pollution.

What is petcoke?

- ✓ Petroleum coke is a **by-product of the oil refining process.**
- ✓ The chemical and physical characteristics of petcoke are depended on the crude oil and refining technology used by the refinery.
- ✓ Physically, petcoke can resemble large sponges with numerous pores, or it can resemble small spheres, ranging in size from a grain of sand to a large marble.
- ✓ Chemically, petcoke can include a variety of elements and metals in a wide range of concentrations.
- ✓ Depending on these physical and chemical characteristics, Petroleum coke is typically **used as a source of energy**, or **as a source of carbon for industrial application.**
- ✓ As petcoke has **a higher energy content**, petcoke emits between 30 and 80 percent more CO_2 **than coal** per unit of weight.

What is Furnace oil?

- ✓ It is a dark viscous residual product used as a fuel in different types of combustion equipment.
- ✓ obtained by blending mainly heavier components from crude distillation unit, short residue and clarified oil from fluidized catalytic cracker unit.
- ✓ Bunker fuel, furnace oil, fuel oil are other names for the same product.

5.5. Dengue

Why in news?

The National Vector Borne Disease Control Programme (NVBDCP) records show that 1,29,329 people fell sick with dengue this year, while 200 died.

Antibody-dependent enhancement (ADE) and dengue haemorrhagic fever (DHF)

- ✓ The dengue virus has **four serotypes**, or types that are classified by the type of antigen (a molecule on the viral surface which human antibodies recognise) they have.
- ✓ These serotypes are **DENV-1, DENV2, DENV-3 and DENV-4.**
- ✓ When a person is affected by one dengue serotype, he/she develops antibodies against it, which protect her for the rest of his/her life.
- ✓ If the same person is then infected by a different serotype, he/she is likely to develop severe disease.
- ✓ This is because, in some cases, antibodies against the first serotype worsen the second infection, instead of protecting against it.
- ✓ This phenomenon is called **antibody-dependent enhancement (ADE)** and results in a more dangerous illness called **dengue haemorrhagic fever (DHF).**

More about Dengue

- ✓ **Mosquito-borne viral infection** causing a severe flu-like illness.
- ✓ Pandemic-prone viral disease (An epidemic occurring worldwide or over a wide area, crossing boundaries of several countries, and usually affecting a large number of people).
- ✓ Affects more affluent neighbourhoods in tropical and subtropical countries.
- ✓ The full life cycle of dengue fever virus involves the role of mosquito as a transmitter (or vector) and humans as the main victim and source of infection.
- ✓ The *Aedes aegypti* mosquito is the main vector that transmits the viruses that cause dengue.

✓ The viruses are passed on to humans through the bites of an infective female *Aedes* mosquito, which mainly acquires the virus while feeding on the blood of an infected person.

5.6. Malaria

Why in news

India accounted for 6% of global malaria cases and 7% of deaths caused by it in 2016, according to a report released by the World Health Organisation (WHO).

In High Level Roundtable on "Accelerating the Elimination of Malaria in the South-East Asia Region" Union Minister of Health and Family Welfare stated that India has reduced its new malaria cases by one third, and even crossed the malaria mortality targets of 2020.

More about Malaria
✓ Malaria is caused by **Plasmodium parasites.**
✓ The parasites are spread to people through the bites of infected female **Anopheles mosquitoes, called "malaria vectors."**

5.7. Cobots (Collaborative Robots)

Why in News?

Cobots are gaining currency across the world, as also in India.

More about cobots
✓ A cobot or co-robot (from collaborative robot) is a robot intended to physically interact with humans in a shared workspace.
✓ This is in contrast with other robots, designed to operate autonomously or with limited guidance
✓ Cobots support and relieve the human operator of his excess work.
✓ They are easy to use, flexible and safe.
✓ Unlike industrial robots, cobots don't need fencing for the protection of workers in the shop floor.
✓ The key benefits of cobots were compactness, low payback period, flexibility, lightweight nature, cost-effectiveness, accuracy and safety.
✓ Other benefits include zero annual maintenance costs, reduced power consumption and retention of IP within the company.

EVENTS

5.8. The UN Environment Emissions Gap Report 2017

Why in news?

UNEEGR 2017 released ahead of the 23rd Conference of the Parties to the UNFCCC in Bonn.

More about the report
✓ It is a report produced by the **United Nations Environment Programme (UNEP).**
✓ The UN Environment Emissions Gap Report 2017 presents an assessment of current national mitigation efforts and the ambitions countries have presented in their Nationally Determined Contributions, which form the foundation of the Paris Agreement.

- Warns that a big carbon emissions gap exists between the levels that can be achieved in 2030 with present climate commitments, and what needs to be done using set pathways to limit increases in global average temperature to less than 2° Celsius or a more ambitious 1.5° C by the year 2100.
- Full implementation of the unconditional Nationally Determined Contributions (NDCs) and comparable action afterwards "could result in a temperature increase of about 3.2° C by 2100 relative to pre-industrial levels", while full implementation of conditional NDCs would marginally lower that projection by about 0.2°C.
- Fossil fuels and cement production account for about 70% of greenhouse gases, the report noted.

5.9. Rice Research Centers

Why in news

Prime Minister visited the global Rice Research Centre in the Philippines, during his visit to attend the ASEAN- India and the East Asia Summit.

Regional centre of international rice research institute, Varanasi

- India is setting up a **regional centre of the IRRI in Varanasi, to develop high-yielding rice varieties.**
- The Varanasi Centre would help increase farmers' income by enhancing and supporting rice productivity, reducing cost of production, value addition, diversification and enhancement of farmers' skills.

International Rice Research institute (IRRI)

- IRRI is an independent, non-profit, research and educational institute.
- Founded in 1960 by the Ford and Rockefeller foundations with support from the Philippine government
- The institute, headquartered in **Los Baños, Philippines**, has offices in 17 rice-growing countries in Asia and Africa.
- The IRRI, is known for its work in developing rice varieties that contributed to the Green Revolution in 1960s.
- A large number of Indian scientists are working in the International Rice Research Institute (IRRI)

Aim
- To improve livelihoods and **nutrition,**
- To abolishing poverty, hunger and **malnutrition** among those who depend on **rice-based agri-food systems**.
- Protects the health of rice farmers and consumers,
- Protect the **environmental sustainability** of rice farming in a world challenged by **climate change**
- Promote the **empowerment of women** and supports **opportunities for youth** in an equitable agri-food system.
- Provide scientists and producers with the genetic information and material they need to develop improved technologies and enhance rice production.

5.10. National Certification System for Tissue Culture Raised Plants (NCS-TCP)

Why in news?

Department of Biotechnology, Ministry of Science & Technology conducted a Stakeholder meet at New Delhi to create awareness among all the Stakeholders dealing with tissue culture plants/quality planting material, on **"National Certification System for Tissue Culture Raised Plants (NCS-TCP)"** and to identify the way forward to realize the full potential of this certification system.

More about the program
- National Certification System for Tissue Culture Raised Plants (NCS-TCP) is being implemented by **Department of Biotechnology (DBT),** Govt. of India since year 2006 under the **Seeds Act. 1966.**

Aim

✓ Ensuring production and distribution of quality tissue culture planting materials.
✓ Ensures recognition of Tissue Culture Production Facility for the production of quality planting material and certification of end products.

Why is it important?

✓ With increasing demand for agricultural, forestry, plantation and horticulture crops, the demand for high quality, high yielding, disease free planting stock has been increased.
✓ **Plant Tissue Culture** has emerged as an important biotechnology and commercially viable tool to multiply elite varieties of high quality, disease free and high yielding plants rapidly in the laboratory irrespective of the season of the year.
✓ **India is the only country to develop this certification system.**

5.11. INS Sagardhwani and International Indian Ocean Exploration (IIOE) - 2

✓ The Kochi-based ship, operated by the Navy and equipped with eight scientific laboratories, recently joined an international campaign to revisit the major interdisciplinary 'International Indian Ocean Exploration (IIOE)' conducted in 1960s.
✓ International Indian Ocean Exploration (IIOE) in 1960s was a watershed event for ocean research in India. It triggered the formation of several ocean-based research institutions in India like the NIO, NIOT, INCOIS etc.
✓ Present expedition is called as IIOE-2 is a **commemorative expedition** of the first International Indian Ocean Exploration.
✓ It is organised by the **Intergovernmental Oceanographic Commission (IOC) under the UN.**
✓ It hopes to further the scientific community's understanding of the Indian Ocean **biophysical variability in response to monsoon and human activity**.

5.12. Dr A P J Kalam Ignite Award 2017

Why in news?

Kalam Ignite Awards are given to children for showing innovative spirit. It was organized by **The National Innovation Foundation – India (NIF),** an autonomous body of the Department of Science and Technology, Govt. of India, in association with **CBSE, Honey Bee Network** and other partners.

More about the Award

✓ Dr APJ Abdul Kalam IGNITE competition is an **annual national competition to harness the creative and innovative spirit of children.**
✓ It is a national competition of original technological ideas and innovations by children **up to class 12 or those out of school up to the age of 17 years.**
✓ **Objective:** To promote creativity and originality among children.

National Innovation Foundation

✓ National Innovation Foundation-India (NIF), set up by Department of Science and Technology, started functioning in March 2000 as India's national initiative to strengthen the grassroots technological innovations and outstanding traditional knowledge..

The Honey Bee Network

✓ It is a volunteer network, spread across 75 countries, which is engaged in the development of a sustainable knowledge ecosystem.

5.13. Aditya – L1 Mission

Why in News?

India set to launch Aditya, the first Indian mission to study the sun – during 2019 – 2020. It will be launched by PSLV - XL from Sriharikota.

What is it?

- ✓ It is the grand scientific mission to the Sun for observing the **solar corona** (with a Coronagraph--atelescope), **photosphere, chromosphere** (Sun's three main outer layers) and **solar wind**.
- ✓ **Aditya-L1** satellite will study the Sun from an orbit around the **"Sun-earth Lagrangian point (L-1)",** which is about 1.5 million km from earth.
- ✓ The mission will carry **seven payloads**, consisting of a **coronagraph**, equipment that will image the sun using ultraviolet filters, **X-ray spectrometers**, and **particle samplers** all being made within the country.

Corona

- ✓ The outer layers of the Sun, extending to thousands of km above the disc (photosphere) is termed as the **corona**.
- ✓ It has a temperature of more than a million degree Kelvin which is much higher than the solar disc temperature of around 6000K. How the corona gets heated to such high temperatures is still an unanswered question in solar physics.

Space Weather

- ✓ Space weather describes the dynamic conditions in the **Earth's outer space environment**, in the same way that "weather" and "climate" refer to conditions in Earth's lower atmosphere.
- ✓ Space weather involves any and all conditions and events on the sun which include solar wind as well.
- ✓ It can lead to geomagnetic variations, aurora, and can affect a number of technologies (Space-based telecommunications, broadcasting, weather services and navigation).

Watch Video on Sun Spots in NEO IAS youtube channel.

The image gives a basic overview of the sun's parts. The cut-out shows the three major interior zones: the core (where energy is generated by nuclear reactions), the radiative zone (where energy travels outward by radiation through about 70% of the Sun), and the convection zone (where convection currents circulate the Sun's energy to the surface). The surface features (flare, sunspots and photosphere, chromosphere, and the prominence) are all clipped from actual SOHO images of the Sun. *Credits: ESA&NASA/SOHO*

Lagrange Point and Halo Orbit

- ✓ A **Lagrange point** is a location in space where the **combined gravitational forces of two large bodies,** such as Earth and the sun or Earth and the moon, **equal the centrifugal force felt by a much smaller third body.**
- ✓ This interaction of the forces creates **a point of equilibrium** where a spacecraft may be "parked" to make observations.
- ✓ Due to this delicate balance of gravitational forces, the satellite will require very little energy to maintain its orbit. Also it will not be eclipsed from the sun.
- ✓ There are five such points. One of these is the **L1 point**, which is about 1.5 million km from the earth where **Aditya L1** Satellite will be parked.
- ✓ A **halo orbit** is an orbit in which a spacecraft will remain in the vicinity of a Lagrangian point, following a circular or elliptical loop around that point.
- ✓ Halo orbits are the result of a **complicated interaction** between the **gravitational pull** of the two planetary bodies and **the Coriolis** and **centrifugal accelerations** on a spacecraft.
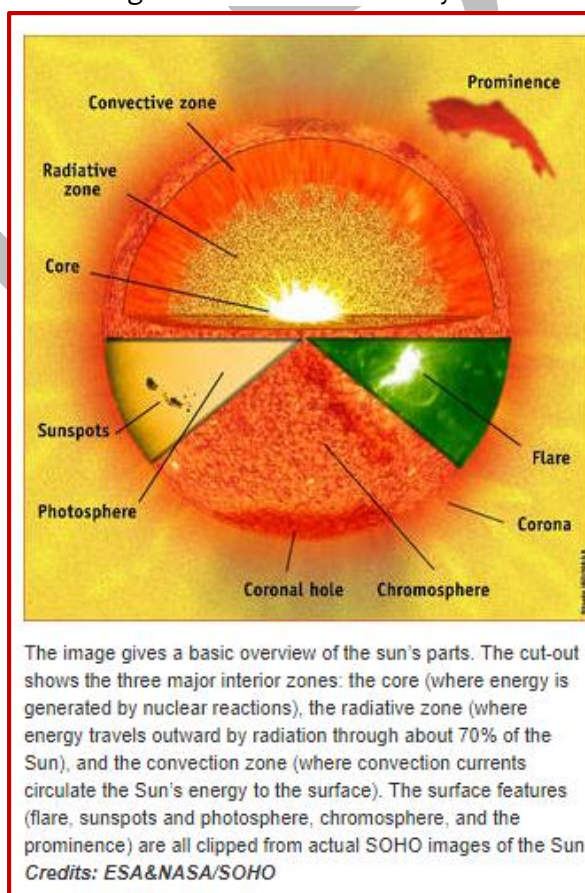
- ✓ Few other space agencies have successfully placed their satellites at this location.
- ✓ Among the few, the **Solar and Heliospheric Observatory (SOHO),** a NASA-ESA collaboration involving America and Europe, and NASA's **Advanced Composition Explorer (ACE)** are at L1 exclusively to study the sun and space weather, respectively.

5.14. Hyperloop

Why in news?

Maharashtra, Andhra Pradesh and Karnataka have signed deals with Virgin Hyperloop One (VHO) to assess the possibility of developing hyperloops in these states.

What is it?

- ✓ Hyperloop is a **pod-based terrestrial transportation system** which can carry passengers or freight through a **near-vacuum tube at airline speeds.**
- ✓ It is basically a **capsule levitating inside a tube with minimal air to create a vacuum.**
- ✓ Inside the tube, the capsule can move at a **speed of more than 1000 kilometre per hour.**
- ✓ With very thin air inside the tube, the capsules can travel at **supersonic speed.**

5.15. Electronic Interlocking (EI) System of Railways

What is in news?

India's largest state of the art, Electronic Interlocking (EI) system of 800 routes has been commissioned at **Kharagpur station in West Bengal.** This EI system, also one of the largest in the World, replaces the old Route Relay Interlocking system with 423 routes.

Electronic Interlocking

- ✓ In railway signalling, an interlocking is an **arrangement of signal apparatus** that prevents conflicting movements through an arrangement of tracks such as junctions or crossings.
- ✓ An interlocking is designed so that it is impossible to display a signal to proceed unless the route to be used is proven safe.
- ✓ Electronic Interlocking is an advanced Interlocking system and **alternative to the conventional Relay Interlocking system.**
- ✓ This will **lead to reduction in use of copper cables** which is not only unreliable, difficult to maintain, prone to theft but also costly.
- ✓ Other benefits are: Space requirement is reduced substantially, reduction in power consumption, self-diagnostic features, more reliability and safety and alteration due to yard remodelling can be effected through change of data in CPU instead of wiring change.

5.16. Phosphorylation

- ✓ **Scripps Research Institute,** U.S. researchers hypothesised that a chemical reaction called **phosphorylation –** may have been crucial for the assembly of three key ingredients in early life forms.
- ✓ These ingredients are
  - o Short strands of nucleotides to store genetic information,
  - o Short chains of amino acids (peptides) to do the main work of cells, and
  - o Lipids to form encapsulating structures such as cell walls

5.17. Darunavir + Ritanovair

Why in news?

Hetero, a leading generic pharmaceutical company, has announced the launch of this drug in India.

What is it?

- ✓ First ever generic fixed dose combination (FDC) drug for the treatment of human immunodeficiency virus (HIV-1) in treatment-experienced adult patients
- ✓ Is an anti-retroviral medication
- ✓ Has been cleared by the Drug Controller-General of India.
- ✓ Once-daily dose, simplifies the patient's treatment with one tablet taken every day, along with other anti-retroviral agents, ensuring that the drugs are taken in correct proportions.
- ✓ This '2-in-1' combination therapy improves the patient's adherence to treatment, while improving the quality of life.

5.18. Neurons

Why in news?

Researchers at the **National Brain Research Centre, Gurgaon,** have experimentally demonstrated how neurons that are injured or damaged can be functionally restored by fusion of the severed axons.

What is an axon?

- ✓ An **axon** is a long, slender projection of a nerve cell, or neuron that typically conducts electrical impulses away from the neuron's cell body. Also called as nerve fibres, its function is to transmit information to different neurons, muscles, and glands.
- ✓ Neuronal damage arises when the axons are severed into distal and proximal fragments.
- ✓ **Carpel tunnel syndrome** is a typical case of peripheral nerve damage arising from several severed axons.

More on the research

- ✓ Recent experiments carried out on worms (*Caenorhabditis elegans*) shows how the touch sensation of the worms is restored when the two severed axon fragments fuse.
- ✓ The researchers genetically proved that three molecules — ced-7, psr-1 and eff-1 — are essential for fusion.
- ✓ They also found that **functional recovery takes place in an age-dependent manner, with better recovery in the late larval stage and less recovery in adult worms.**
- ✓ The finding that the fusion of the severed axons can be genetically improved raises hopes for treating nerve injuries in human in future.

5.19. Lasers for Burn Injury Management

Why in news?

Scientists at Manipal University in Karnataka have demonstrated the ability of the **laser-induced fluorescence (LIF) technique** to quantify the amount of collagen in healing tissues.

What is Collagen?

- ✓ **Collagen** is the most abundant protein in the body and helps give structure to human hair, skin, nails, bones, ligaments and tendons in our body. It is a protein **made up of amino-acids:** glycine, proline, hydroxyproline, and arginine, all of which help human body's connective tissue, skin, hair, nails.
- ✓ This helps in analysing the recovery process - the more the collagen content, the healthier the tissue.

More about the study

- ✓ It studies biochemical changes by exploiting tissue **fluorophores** or chemical compounds that can re-emit light upon light excitation.

- Some of the most common fluorophores are **collagen, elastin, amino acids.**
- Researchers hit injured areas with a **laser light of a particular wavelength** and captured the emitted light in the range, thereby generating a spectrum.
- For each region, multiple spectra are generated and averaged.
- This yields an image that correlates with the collagen content reflective of healthy repair.
- Based on this knowledge, scientists have proposed a simple technique to evaluate the progression of healing using a non-invasive, fast and an easy-to-use tool.

5.20. Genetic Engineering to Reduce Aflotoxin

- ICRISAT researchers develop two ways to make peanuts free of aflatoxin through genetic engineering.
- One strategy prevents groundnuts from being infected by the fungus thereby preventing the toxins from being produced.
- The other strategy prevents the fungus from producing the toxin even if groundnuts somehow get infected with the fungus.
- The ultimate goal is to combine these two traits into a single variety to offer double protection so that groundnuts do not accumulate any aflatoxin.
- Scientists selected two specific genes from alfalfa and inserted them into groundnut plants to enhance the immunity against fungal infection and growth.

Aflatoxin

Aflatoxins are a **family of toxins** produced by certain fungi that are found on agricultural crops such as maize (corn), peanuts, cottonseed, and tree nuts. The main fungi that produce aflatoxins are Aspergillus flavus and Aspergillus parasiticus, which are **abundant in warm and humid regions of the world**. Exposure to aflatoxins is associated with **an increased risk of liver cancer.**

5.21. Drought Resistance Plants and Water Loss

Learn through a question:

Q) Drought-resistant plants such as cacti and succulents require very less amount of water for survival mainly due to

(a) Enormous water stored beneath the leaf and stem of these plants

(b) an enhanced form of photosynthesis to minimize water loss.

(c) the photosynthesis process happening with in the root system

(d) the absence of effective transport mechanism for water within the plant.

Answer: B | A research, published in journal The Plant Cell suggest that drought-resistant plants, such as cacti, agaves and succulents, make use of an enhanced form of photosynthesis known as crassulacean acid metabolism (CAM) to minimize water loss. Unlike other plants, CAM plants are able to take up CO_2 during the cooler night, which reduces water loss, and store captured CO_2 as malic acid inside the cell, allowing its use for photosynthesis without water loss during the next day.

6.1. World Food India

Why in News:

World Food India, a gathering of global leaders and decision makers of the food processing sector is organized Delhi.

Key Points:

- ✓ Organized by **Ministry of Food Processing Industries.**
- ✓ World Food India aims to transform Food Economy and realize the vision of doubling of famers' income by establishing India as a preferred investment destination and sourcing hub for the global food processing industry.
- ✓ This is the **first time** that India is hosting such an event for the Food processing sector.
- ✓ **Participants:** over 200 companies from 30 countries, 18 ministerial and business delegations, nearly 50 global CEOs along with CEOs of all leading domestic food processing companies, and representatives of 28 States in India.
- ✓ **Germany, Japan and Denmark** are Partner Countries to World Food India. **Italy & Netherlands** are the Focus Countries.

6.2. Global Conference on Cyberspace 2017

Why in news?

Global Conference on Cyberspace 2017 is organized in Delhi.

More about the event

- ✓ GCC 2017 includes the 36-hour challenge in the Grand Finale of the Global Cyber Challenge called **Peace-a-thon,** one of the major highlights of the GCC 2017.
- ✓ As a side event to the Hackathon Grand Finale, the **State Bank of India** also hosted **Ideathon,** wherein ideas to strengthen their soon-to-be launched app **YONO (You Only Need One)** were invited from the participants.

What kind of Questions to Expect from such events (Prelims 2017)

(Note: Such events appears to be insignificant. Nevertheless, there has been questions on such government events one must be ready to answer to questions. See some of the questions that came in 2017 prelims based on such events)

→ *Which of the following statements is/are correct regarding Smart India Hackathon 2017?*
1. *It is a centrally sponsored scheme for developing every city of our country into Smart Cities in a decade.*
2. *It is an initiative to identify new digital technology innovations for solving the many problems faced by our country.*
3. *It is a programme aimed at making all the financial transactions in our country completely digital in a decade.*

Select the correct answer using the code given below :

(a) 1 and 3 only

(b) 2 only

(c) 3 only

(d) 2 and 3 only

Solution: B

→ *With reference to 'Asia Pacific Ministerial Conference on Housing and Urban Development (APMCHUD)', consider the following statements:*
1. *The first APMCHUD was held in India in 2006 on the theme 'Emerging Urban Forms — Policy Responses and Governance Structure'.*
2. *India hosts all the Annual Ministerial Conferences in partnership with ADB, APEC and ASEAN.*

Which of the statements given above is/are correct?

(a) 1 only

(b) 2 only

(c) Both 1 and 2

(d) Neither 1 nor 2

Answer: D

→ *Consider the following in respect of Indian Ocean Naval Symposium (IONS):*
1. *Inaugural IONS was held in India in 2015 under the chairmanship of the Indian Navy.*
2. *IONS is a voluntary initiative that seeks to increase maritime co-operation among navies of the littoral states of the Indian Ocean Region.*

Which of the above statements is/are correct?

(a) 1 only

(b) 2 only

(c) Both 1 and 2

(d) Neither 1 nor 2

Answer: B

6.3. Urban Mobility Conference

Why in news?

Hyderabad recently hosted the Urban Mobility India Conference and Expo'. About 1,000 policy makers including Mayors and Municipal Councilors from the five southern States, administrators, experts, urban planners, researchers and foreign delegates participated in the conference. The conference is being **organised jointly by the Union Housing and Urban Affairs Ministry, Telangana government, and CODATU - a French Transport Institute**.

Objective

✓ The **conference aims** at **promoting dissemination of information and exchange of ideas on urban transport and mobility issues and the best practices** being followed in the cities across the world.

Awards given in the conference

✓ Best Non-Motorised Transport Award – **Mysuru's Public Bicycle Sharing.**

✓ Best Urban Transport Initiative – **Kochi for completing its Metro Rail Project in a quick time + integrating the metro with other modes of transport.**

✓ Best City Bus Services Award - Surat Municipal Corporation.

✓ Commendable Initiative award – Chittor for city police's initiative for improving road safety.
  Commendable Initiative award under Best Intelligent Transport Project is for Hyderabad's H-TRIMS (Traffic Integrated Management Initiative).

Hyderabad's H-TRIMS (Traffic Integrated Management Initiative)

✓ Provides round the clock, no break in service signalling at all the 221 junctions and remotely controlled.

✓ Brought down waiting time at traffic junctions by over 33%.

6.4. Draft Regulations for Drone Operations

Why in news?

Ministry of Civil Aviation has released draft regulations for Drone operations in India.

Features of the proposed regulations:

✓ There are 5 types of drones: nano, micro, mini, small and large.

✓ These range from less than 250 grams in weight to over 150 kg.

✓ Drones under 250 g (nano) won't need security clearance.

✓ Micro category (250 g to 2 kg) will get approvals in 2 days.

✓ Whenever you operate a drone, you will need different approval.

✓ Apart from nano drones, all other categories will need an air defence clearance so that aviation as well as security authorities are aware of the flight path.

6.5. Rashtriya Ekta Diwas

✓ Rashtriya Ekta Divas celebrated on 2nd November to pay tribute to **Sardar Vallabhbhai Patel,** who was instrumental in keeping India united.

✓ Rashtriya Ekta Diwas was introduced by the Government of India and inaugurated by Indian Prime Minister in 2014.

6.6. Rashtriya Krishi Vikas Yojana -Remunerative Approaches for Agriculture And Allied Sector Rejuvenation (RKVY-Raftaar)

Why in news?

In a bid to incentivize **States to increase allocations for agriculture and allied sectors** the, Cabinet Committee on Economic Affairs approved the continuation of Rashtriya Krishi Vikas Yojana (RKVY) for three years — 2017-18 to 2019-20 —renaming it as **Rashtriya Krishi Vikas Yojana - Remunerative Approaches for Agriculture and Allied sector Rejuvenation (RKVY-RAFTAAR).**

About the Scheme

Objectives

- ✓ It is launched with the **objective of making farming a remunerative economic activity through strengthening the farmer's effort, risk mitigation and promoting agri-business entrepreneurship.**
- ✓ The scheme will incentivize states in enhancing more allocation to agriculture and allied sectors.
- ✓ This will also strengthen farmers' efforts through creation of agriculture infrastructure that helps in supply of quality inputs, market facilities etc.

Finance

- ✓ The financial allocation of the scheme will be Rs. 15,722 crore. The RKVY-RAFTAAR funds would be provided to States as 60:40 grants between Centre and States (90:10 for North-Eastern States and Himalayan States).
- ✓ Under the revamped scheme, **about 50 per cent of the annual outlay will be provided for setting up infrastructure and assets**, 30 per cent for value addition-linked production projects and 20 per cent of the outlay will be flexi-funds.
- ✓ Flexi funds can be used by the states to support local area projects.
- ✓ In addition, about 20 per cent of the annual outlay would be provided for implementing special sub-schemes of national priorities under RKVY-RAFTAAR.
- ✓ Also, 10 per cent of the annual outlay would be provided for **innovation and agri-entrepreneur development through creating end-to-end solution, skill development and financial support for setting up the agri-enterprise.**

6.7. Pradhan Mantri Gramin Digital Saksharta Abhiyaan

Why is in news?

Minister of State Electronics & IT said that the Common Service Centre have to play a significant role in Digital India initiatives and it has been central in providing key services like PMGDISHA.

What is PMGDISHA?

- ✓ Pradhan Mantri Gramin Digital Saksharta Abhiyaan is the scheme to make six crore persons in rural areas, across States/UTs, digitally literate, reaching to around 40% of rural households by covering one member from every eligible household by 31st March, 2019.
- ✓ The Scheme would empower the citizens in rural areas by training them to operate computer or digital access devices (like tablets, smart phones etc.), send and receive e-mails, browse Internet, access Government services, search for information, undertake digital payment etc.
- ✓ The eligible households can nominate one person from their family. The selected person would get themselves enrolled under this programme in a nearest Training Centre/ Common Service Centre (CSC) for a course of 20 Hours (Minimum 10 Days and Maximum 30 Days).

6.8. PRAGATI

What is in news?

The Prime Minister chaired his twenty-third interaction through PRAGATI - the ICT-based, multi-modal platform for Pro-Active Governance and Timely Implementation.

What is PRAGATI?

✓ PRAGATI (**Pro-Active Governance and Timely Implementation**) is an innovative project in e-governance and good governance.

✓ The platform is aimed at addressing common man's grievances, and simultaneously monitoring and reviewing important programmes and projects of the Government of India as well as projects flagged by State Governments.

✓ The PRAGATI platform uniquely bundles three latest technologies: **Digital data management, video-conferencing and geo-spatial technology**.

✓ Prime Minister will hold a **monthly programme** where he will interact with the **Government of India Secretaries,** and **Chief Secretaries** through Video-conferencing enabled by data and geo-informatics visuals; Therefore, It is a **three-tier system** (PMO, Union Government Secretaries, and Chief Secretaries of the States);

6.9. Bharatnet

Why in news?

The government has proposed a subsidy of Rs 3,600 crore to private telecom service providers such as Bharti Airtel, Vodafone India, Idea Cellular and Reliance Jio through **viability gap funding**, for setting up Wi-Fi in rural areas as part of the second phase of the BharatNet.

Bharatnet

✓ Bharatnet is **an updated and upgraded version of National Optical Fibre Network (NOFN)** which was an **initiative to create middle mile infrastructure** to provide broadband connectivity to gram panchayats.

The aim:

✓ Provide on demand, affordable broadband connectivity of 2 Mbps to 20 Mbps for all households.

✓ to realise the vision of Digital India, in partnership with States and the private sector.

✓ facilitate the delivery of e-governance, e-health, e-education, e-banking, Internet and other services to the rural India.

Implementation

✓ The project is being implemented in three phases:

✓ **In the first phase**, one lakh gram panchayats will be provided with broadband connectivity by laying underground **Optic Fibre Cable (OFC)** lines.

✓ The **second phase will provide connectivity to all 2,50,500 gram panchayats in the country** using **an optimal mix of underground fiber, fiber over power lines, radio and satellite media**.

✓ In the third phase, state-of-the-art, future-proof network, including fiber between districts and blocks, with ring topology to provide redundancy would be created.

✓ Phase 1 of BharatNet is set to be completed by the end of 2017 – which will give fibre connectivity to 1 lakh gram panchayats.

✓ The government intends to double the fibre to 20 lakh km by March 2019 under phase 2 of the project.

✓ The project is expected to provide a minimum of 2 megabit per second speed (2 mbps) to rural households.

✓ Carriers can buy connection or bandwidth from the government to sell the same in rural areas.

Fund:

✓ The entire project is being funded by **Universal service Obligation Fund (USOF),** which was set up for improving telecom services in rural and remote areas of the country.

6.10. UMANG App

Why in news?

The Prime Minister launched the UMANG App – Unified Mobile Application for New-age Governance in the 5th Global Conference on Cyberspace.

More about UMANG

✓ UMANG App aims to bring 162 government services on a single mobile app, with a larger goal to make the government accessible on the mobile phone of citizens.

✓ It helps in accessing 1200+ services of various government services from Centre, State and utility services.

✓ It supports 13 Indian languages and caters to on-demand scalability.

✓ It will soon support feature phones without internet connectivity through USSD.

6.11. Swachh Iconic Places

Why in news?

A two day National Consultation of Swachh Iconic Places (SIP), an initiative of Ministry of Drinking Water and Sanitation under Swachh Bharat Mission is organized in New Delhi.

More about SIP

✓ It is Initiated as a project to implement Prime Minister's vision to take iconic places and their surroundings to higher standards of Swachhata, so that all visitors benefit and also take away home the message of cleanliness, Swachh Iconic Places is now in its second phase.

✓ SIP is a truly collaborative project with three other central Ministries: **Urban Development, Culture, Tourism;** all levels in the concerned States and more importantly, Public Sector and Private companies as partners.

6.12. Video Conference for Governance

✓ Andhra Pradesh Chief Minister inaugurated Asia's biggest video conference hall at the **Real Time Governance (RTG) Command Control Centre (CCC)**

✓ The objective of the CCC is to review, monitor and issue orders during emergencies and other law and order situations.

✓ If required, officials and Ministers will monitor the situation at the ground level with the help of drones.

INSTITUTIONS

6.13. Competition Commission of India

Why in News?

Competition Commission of India (CCI) issues order against Board of Control for Cricket in India (BCCI) for abuse of dominant position for imposing restriction that deny access to the market for organization of Professional Domestic Cricket League/ Events; Imposes penalty of Rs. 52.24 crore on BCCI for the Anti-Competitive conduct.

More about CCI

✓ Competition Commission of India is a **statutory body** of the Government of India responsible **for enforcing The Competition Act, 2002** throughout India and to prevent activities that have an appreciable adverse effect on competition in India.

- The Competition Act, 2002, prohibits **anti-competitive agreements, abuse of dominant position** by enterprises **and regulates combinations** (acquisition, acquiring of control and M&A).
- The Commission is also required to **give opinion on competition issues** to government authorities and to **undertake competition advocacy**, **create public awareness and impart training** on competition issues.
- CCI consists of a **Chairperson and 6 members** appointed by the Central Government.

6.14. National Foundation for Communal Harmony

Why in news

National Foundation for Communal Harmony is organizing the Communal Harmony Campaign week.

More about the foundation

- The National Foundation for Communal Harmony (NFCH), an autonomous organisation with the **Ministry of Home Affairs**
- It was set up as **an autonomous organisation** under the Societies Registration Act, 1860, and registered in 1992.
- The **Home Minister is ex-officio chairman** of the Governing Council of the Foundation.

Objectives and activities

- The Foundation promotes Communal Harmony and strengthens National Integration.
- The main objective of the foundation is to **provide assistance for the physical and psychological rehabilitation of the child victims** of communal, caste, ethnic or terrorist violence.
- Under its **Project 'Assist'**, the NFCH provides financial assistance for relief and rehabilitation of such children.

> **What kind of questions to expect (2015 Prelims)**
>
> Q) Which of the following statements is/are correct regarding National Innovation Foundation-India (NIF)?
> 1. NIF is an autonomous body of the Department of Science and Technology under the Central Government
> 2. NIF is an initiative to strengthen the highly advanced scientific research in India's premier scientific institutions in collaboration with highly advanced foreign scientific institutions.
>
> Select the correct answer using the code given below.
> (a) 1 only
> (b) 2 only
> (c) Both 1 and 2
> (d) Neither 1 nor 2
>
> Solution A

6.15. TRAI and Net Neutrality

Why in news?

The Telecom Regulatory Authority of India (TRAI) came out in strong support of **Net neutrality** in a series of recommendations following a long process of consultations.

TRAI

- The Telecom Regulatory Authority of India (TRAI) is a **statutory body** set up for regulating the Telecom and Broadcasting Sectors.
- TRAI was created by enacting the **TRAI Act 1997** (as amended in the year 2000).
- It's functions include:

o To recommend conditions for entry of new telecom service providers terms and conditions of license and ensure compliance of the terms and conditions of the license.

o to lay down the standards of quality of service and ensure compliance and specify the tariff policy

o make recommendations regarding terms and conditions on which Addressable Systems of TV shall be provided to customers. Regulations on parameters for regulating maximum time for advertisements in pay as well as other TV channels

o Resolution of conflicts that may arise due to market developments and diverse network structures for various telecom services.

o Protection of the consumer interest

> ### Net neutrality
> Net Neutrality means an internet that enables and protects free speech. It means that ISPs should provide open networks — and shouldn't block or discriminate against any applications or content that ride over those networks. Under these principles, internet service providers are unable to intentionally block, slow down or charge money for specific websites

6.16. Commissioner of Railway Safety

Why in news?
Commissioner of Railway Safety will enquire into Vasco Da Gama- Patna Express derailment in which 03 passengers lost their lives.

More about the Commissioner of Rail Safety
The Commission of Railway Safety, working under the administrative control of the **Ministry of Civil Aviation**, deals with matters pertaining to safety of rail travel and train operation and is charged with certain statutory functions as laid down in **the Railways Act (1989),** which are of an **inspectorial, investigatory & advisory nature**.

6.17. Pradhan Mantri Kisan Sampada Yojana

Why in News:
While inaugurating World Food India, Prime Minister emphasized on the Pradhan Mantri Kisan Sampada Yojana, which aims to create world-class food processing infrastructure.

It leverage investment of $5 billion, benefit two million farmers and generate more than half a million jobs over the next three years.

More about SAMPADA Yojana
Pradhan Mantri Kisan SAMPADA Yojana (Scheme for Agro-Marine Processing and Development of Agro-Processing Clusters) with an allocation of Rs. 6,000 crore for the period 2016-20.

SAMPADA is an umbrella scheme incorporating ongoing schemes of the Ministry. The schemes under PM Kisan SAMPADA Yojana are :
- ✓ Mega Food Parks
- ✓ Integrated Cold Chain and Value Addition Infrastructure
- ✓ Creation / Expansion of Food Processing & Preservation Capacities
- ✓ Infrastructure for Agro-processing Clusters
- ✓ Creation of Backward and Forward Linkages
- ✓ Food Safety and Quality Assurance Infrastructure
- ✓ Human Resources and Institutions

7. SECURITY: EVENTS, INSTITUTIONS AND ASSETS

7.1. PRABAL DOSTYK – 2017

A fourteen day joint training exercise "PRABAL DOSTYK – 2017" between **the Indian Army and the Kazakhstan Army** commenced with the Opening Ceremony at **Bakloh, Himachal Pradesh**. The joint exercise is aimed at enhancing the military ties between the two countries as also at achieving interoperability between the two armies.

7.2. Sampriti 2017

Why in news?

India-Bangladesh joint military exercise is conducted at Vairengte in Mizoram.

More about Sampriti

✓ It is the Seventh such exercise in the Sampriti series.

✓ The exercise is aimed at strengthening and broadening the aspects of interoperability and cooperation between the Indian and Bangladesh Armies.

7.3. Danx Exercise

✓ Defence of Andaman and Nicobar Islands Exercise (DANX) is conducted under the aegis of Andaman & Nicobar Command of the Army. It was a five day exercise started on 20 Nov 2017 and culminated on 24 Nov 2017.

✓ Accretional forces from the main land including fighters, Special Forces, Naval ships and heavy lift transport aircraft participated in the exercise.

7.4. Enforcement Directorate

Why in News?

The Enforcement Directorate has issued notice to Kashmiri separatist leader Yasin Malik.

About ED

✓ Directorate of Enforcement is a **specialized financial investigation agency** under the **Department of Revenue, Ministry of Finance.**

✓ It enforces the following laws: -

    o **Foreign Exchange Management Act,1999 (FEMA)** - **A Civil Law**, with officers empowered to conduct investigations into suspected contraventions of the Foreign Exchange Laws and Regulations, adjudicate, contraventions, and impose penalties on those adjudged to have contravened the law.

    o **Prevention of Money Laundering Act, 2002 (PMLA)** - **A Criminal Law**, with the officers empowered to conduct investigations to trace assets derived out of the proceeds of crime, to provisionally attach/ confiscate the same, and to arrest and prosecute the offenders found to be involved in Money Laundering.

7.5. National Investigation Agency

Why in news?

National Investigation Agency is frequently in news related to various cases. It is important to know more about such organizations for your prelims.

More about NIA

✓ NIA is a **statutory organization established as Central Counter Terrorism Law Enforcement Agency.**

✓ NIA Act was enacted on December 2008.

✓ **Rationale:** A large number of terror related incidents are found to have complex inter-State and international linkages, and possible connection with other organized criminal activities. Thus, NIA is **established in a concurrent jurisdiction framework,** with provisions for taking up specific cases under specific Acts for investigation.

✓ A State Government may request the Central Government to hand over the investigation of a case to the NIA, provided the case has been registered for the offences as contained in the schedule to the NIA Act.

7.6. Asia Pacific Computer Emergency Response Team - APCERT

Why in news

Officials from CERT of around 20 countries attended the conference which deliberated on issues such as coordination among CERTs of different countries, rise of new kinds of cyber attacks etc. India was also selected to be part of the steering committee of APCERT along with six (Australia, China, Japan, Korea, Malaysia and Taiwan) other countries to shape the agenda for the next two years across the region.

What is it?

✓ It is a coalition of CERTs (Computer Emergency Response Team) and CSIRTs (Computer Security Incident Response Teams) located in the Asia Pacific region.

✓ Focus to contribute to the Internet security with in the region, based on information sharing, trust and cooperation.

✓ Currently, APCERT consists of 30 Operational Members from 21 economies and 3 Supporting Members.

✓ Japan Computer Emergency Response Team / Coordination Center acts as the Secretariat.

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7.7. Data Security Council of India (DSCI)

Why in News?

Ministry of Electronics and Information Technology (MeitY) is in the process of working with the Data Security Council of India (DSCI) to conduct a Challenge Grant for cyber security to encourage budding start-ups develop innovative technologies.

What is it?

✓ Data Security Council of India (DSCI), is a not-for-profit, industry body on data protection in India, setup by NASSCOM.

Aim

✓ committed to making the cyberspace safe, secure and trusted by establishing best practices, standards and initiatives in cyber security and privacy.

✓ Engages with governments and their agencies, regulators, industry sectors, industry associations and think tanks for policy advocacy, thought leadership, capacity building and outreach activities.

✓ It builds capacity in security, privacy and cyber forensics through training and certification program for professionals and law enforcement agencies and engages stakeholders through various outreach initiatives including events, awards, chapters, consultations and membership programs.

✓ Endeavours to increase India's share in the global security product and services market through global trade development initiatives.

✓ Aim at developing Alternate Dispute Resolution system in data protection.

7.8. National Cadet Corps (NCC)

Why in news?

National Cadet Corps (NCC), the **largest uniformed youth organisation** in the world, celebrated its 69th Raising Day.

More about NCC

✓ The National Cadet Corps is the Indian military cadet corps with its Headquarters at New Delhi.

✓ It is open to school and college students on voluntary basis.

✓ National Cadet Corps is a Tri-Services Organization, comprising the Army, Navy and Air Force, engaged in grooming the youth of the country into disciplined and patriotic citizens.

✓ At national level, **Ministry of Defence** and at the state level, **Ministry of Education** deals with NCC.

✓ NCC was first started in 1666 **in Germany**. The NCC in India was formed with the **National Cadet Corps Act of 1948**.

✓ Motto of NCC is **"Ekta aur Anushan"** (Unity and Discipline).

ASSETS

7.9. Brahmos Air Launched Missile

Why in news?

IAF has successfully fired the BrahMos air version anti shipping missile from its frontline Su-30 MKI fighter aircraft off the Eastern Coast. The air launched BrahMos missile is a **2.5 ton supersonic air to surface cruise missile** with ranges of more than 400 kms. The IAF is the **first Air Force in the** world to have successfully fired an air launched 2.8 Mach surface attack missile of this category. BrahMos, which is multiplatform, multi-mission missile, is now capable of being launched from land, sea and air and completes the **tactical cruise missile triad.**

More about Brahmos

- The BrahMos is a medium-range ramjet supersonic cruise missile that can be launched from submarine, ships, aircraft, or land. It is considered to be the fastest supersonic cruise missile in the world.
- BrahMos is a **joint venture with Russia** and named after the Brahmaputra and **Moskva rivers.**
- It is a **two stage missile** with **solid propellant booster engine** as its first stage which brings it to supersonic speed. **Second stage use liquid ramjet engine** and takes the missile closer to 3 Mach speed (3 times the speed of sound).

- It has a flight **range up to 450 Km** with supersonic speed all through the flight. It can't be intercepted by any known weapon system in the world.
- It operates on fire and forget principle, adopting varieties of flights on its way to the target.
- It carries conventional warhead weighing **200 to 300 kgs.**

7.10. Tejas

Why in news

Government is now aiming to install capability enhancements and speed up the rate of production of Light Combat Aircraft (LCA) Tejas.

TEJAS

- It is India's Indigenous Light Combat Aircraft.
- LCA Tejas is a **single-seat, single-jet engine, multirole light fighter** designed by the **Aeronautical Development Agency** and **Hindustan Aeronautics Limited** primarily **for the Indian Air Force and Navy.**
- The aircraft is equipped to handle **air-to-air missiles, air-to-surface missiles, anti-ship missiles, bombs and rockets**.
- It is considered to be the **lightest multi-role supersonic aircraft of its class.**
- The production of **Tejas Mk-1A** will begin in 2019.
- The process is to install an **Advanced Electronically Scanned Array (AESA) radar** and Self-Protection Jammer.
- The Tejas is the second supersonic fighter developed by Hindustan Aeronautics Limited (HAL) after the HAL **HF-24 Marut.**

7.11. 'Nirbhay'– Subsonic Cruise Missile

Why in news?

India successfully test-fired the first **indigenously designed and developed long range sub-sonic cruise missile** 'Nirbhay', which can be **deployed from multiple platforms.**

More about the missile

- It can **carry warheads of up to 300kg.**
- The missile has a **range of 1,000 km** and has the capability **to cruise at 0.7 Mach,** at altitudes as low as 100 metres.
- It was fifth experimental test of the homegrown missile system. Out of previous 4 trials, only one was successful.
- Fired from Integrated Test Range (ITR), Chandipur, Odisha.

What is Sub-Sonic?

- Any speed lower than the speed of sound within a sound-propagating medium.
- The speed of sound is the distance travelled per unit time by a sound wave as it propagates through an elastic medium.
- In dry air at 0 °C, the speed of sound is 331.2 metres per second (approximate) which is equal to (1 Mach).

7.12. SAAW

The Defence Research and Development Organisation (DRDO) has successfully tested an indigenously developed **light weight glide bomb, Smart Anti Airfield Weapon (SAAW),** which can target large enemy infrastructure, like airfields.

7.13. Aircraft Carriers of India

What is in news?

The Navy is likely to go for an advanced catapult-based aircraft launch mechanism (CATOBAR) from the U.S. for its second indigenous aircraft carrier (IAC-II), which is on the drawing board.

Details

- India's first domestic carrier, **Vikrant,** weighing 40,000 tonnes, is in an advanced stage of construction in Kochi and is scheduled to be launched by 2018-end. *(in picture)*
- **INS Vikramaditya** is the serving aircraft carrier which is bought from Russia.
- **INS Viraat** was another aircraft carrier which has been decommissioned.

7.14. INS Sarvekshak

Why in News?

In an initiative to bolster bilateral relations with friendly foreign countries and navies in the Indian Ocean region, INS Sarvekshak, a hydrographic survey ship of Indian arrived in Tanzania for undertaking joint Hydrographic Survey along with the Tanzanian Navy.

More about INS Sarvekshak

- It is an **indigenously designed and constructed hydrographic survey ship of the Indian Navy.**
- It is the **first naval ship** to go green by installing zero-maintenance solar power system.
- It has developed an innovative solution for tidal measurement during Hydrological Surveys by use of land based terrain mapping equipment and floating buoys mounted with prisms.

7.15. INSV Tarini

What is in news

INSV Tarini finished first leg of its voyage and started its second leg of the voyage.

Key Points

✓ Tarini is the Indian Navy's **second ocean going sailboat.**
✓ Tarini is used for the **First Indian All Women Circumnavigation of the Globe expedition of the Indian Navy**.
✓ The expedition will be covered in five legs, with stop-overs at 4 ports viz. Fremantle (Australia), Lyttleton (New Zealand), Port Stanley (Falklands), and Cape Town (South Africa).
✓ Indian Navy will is operating four sailing vessels capable of open ocean deployments, that is, **Tarangini, Sudarshini, Mhadei and Tarini**, all four of which have been built in shipyards at Goa.

7.16. Ballistic Missiles and Cruise Missiles

Why in News?

North Korea said it successfully tested a new intercontinental ballistic missile(ICBM) **Hwasong-14,** that puts the U.S. mainland within the range of its nuclear weapons.

Ballistic missiles and Cruise missiles are two different type of missiles often heard in news. It is important to understand the crucial difference between them.

Differences between cruise and ballistic missiles.

Ballistic missiles

- Ballistic missiles follow an arc-like trajectory and are launched from the land or sea
- They usually carry a nuclear warhead and are very heavy
- They rely on Earth's gravity to fly down once launched
- They have much larger range

Cruise missiles

- It can also be launched from air and fly within Earth's atmosphere
- They have their own engines and wings to strike the target
- They can be supersonic or sub-sonic and are highly accurate
- They usually carry conventional warheads although some cruise missiles can also be equipped with nuclear warheads

7.17. Software Defined Radios and Defence Acquisition Council

What is in news?

The Defence Acquisition Council approved the procurement of more than 260 Software Defined Radios (SDR) for **the Navy.**

Software Defined Radios (SDR)

✓ This is the **first indigenously designed and developed SDR** to be procured by any of the three services.
✓ This technology will improve information sharing and situational awareness through secure voice communications and data transfer capabilities.

Defence Acquisition Council

✓ The structure of the council **ensures equal representation to bureaucracy as well as armed forces,** which means that there are in-built checks and balances in relation to procurement.
✓ DAC is chaired by **Defence Minister.**

Objectives

- To counter corruption and speed up decision- making in military procurement, the government of India in 2001 decided to set up an **integrated DAC.**
- The DAC will give **policy guidelines to acquisitions,** based on long-term procurement plans.
- It will also **clear all acquisitions**, including imported equipment and those produced indigenously or under a foreign licence.
- To monitor the acquisition process, the DAC will preside over three wings - a Defence Procurement Board which will deal with purchases, a Defence Production Board and a Defence Research and Development Board.

8. ENVIRONMENT: INSTITUTIONS, INTERVENTIONS AND BIODIVERSITY

INSTITUTIONS

8.1. World Meteorological Organization (WMO)

Why in news

According to World Meteorological Organization (WMO) – past three years have all been in the top three years in terms of temperature records. Climate Change is evident in temperatures topping 50C in Asia, record breaking hurricanes in rapid succession in Caribbean and Atlantic, monsoon flooding, relentless drought in East Africa. These results were revealed at COP23 talks.

More about WMO
- The World Meteorological Organization is an **intergovernmental organization** with a membership of 191 Member States and Territories.
- It originated from the International Meteorological Organization, which was founded in 1873.
- WMO is a **specialized agency of the United Nations (UN).**
- It is the UN system's authoritative voice on the **state and behaviour of the Earth's atmosphere**, its interaction with the land and oceans, the weather and climate it produces and the resulting distribution of water resources.
- WMO **originated from the International Meteorological Organization (IMO),** which was founded in 1873 to facilitate the exchange of weather information across national borders. Established in 1950, the WMO became a specialized agency of the United Nations in 1951.

8.2. Mission Innovation

Why in News?

An international workshop was being organized by Mission innovation at New Delhi to define research priorities and develop action plan for time bound action for realization of future smart grids powered by renewables.

More about the Organization
- Mission Innovation (MI) is a global initiative of 22 countries and the European Union to dramatically accelerate global clean energy innovation.
- As part of the initiative, participating countries have committed to **seek to double their governments' clean energy research and development (R&D) investments over five years, reaching around a combined USD $30 billion per year in 2021.**
- It also encourage greater levels of private sector investment in transformative clean energy technologies.

- High-level leadership is provided by member governments' Ministers with responsibility for clean energy innovation. **India is a Member.**

Breakthrough Energy Coalition

- **Breakthrough Energy Coalition** is a global group of 28 high net worth investors from 10 countries committed to funding clean energy companies emerging from the initiatives of Mission Innovation.

8.3. UN Climate Change Conference, Bonn (Cop23 Talks)

Why in news?

23rd annual 'conference of the parties' (COP) under **UN Framework Convention on Climate Change (UNFCCC),** officially referred as COP 23/ CMP 13/ CMA 1-2 is being held at **Bonn, Germany.** It is hosted by the secretariat of the UN Framework Convention on Climate Change (UNFCCC), and **presided over by Fiji.**

Aim:

- to prevent dangerous anthropogenic interference with the climate system / halt global warming.
- to advance the aims and ambitions of the Paris Agreement and achieve progress on its implementation guidelines.

One Conference, Two Zones

- The COP23 is being organized following an innovative concept of **"one conference, two zones"**.
- During the two weeks of the conference, a vast area of the city of Bonn will become the Climate Campus that will be organized in two zones: the **"Bula Zone" and the "Bonn Zone".**
- This approach **focuses on a close integration of the zones** to ensure that negotiations, events and exhibits are integrated into one conference.
- The **Bula Zone** is where talks between governments will take place.
- The **Bonn Zone**, will accommodate events showcasing climate action, including high-level events, side events and exhibits organized by both UNFCCC and the Government of Germany. It will also include some media activities as well as events in the delegation pavilions.

8.4. Powering Past Coal Alliance

Why in news?

In the recently concluded 23rd meeting of the Conference of the Parties (COP-23) of the United Nations Framework Convention on Climate Change in Bonn saw the launch of the Powering Past Coal Alliance.

More about the alliance

- It is led by **Canada and the U.K.,** and joined by numerous countries.
- It brings together a diverse range of governments, businesses and organizations that are united in taking action to accelerate clean growth and climate protection through the rapid phase-out of traditional coal power.
- As of now, India is **not** a member.

8.5. Inspire 2017 and Energy Efficiency Organizations

What is in news?

The first edition of the International Symposium to Promote Innovation & Research in Energy Efficiency (INSPIRE 2017) is organized in Jaipur. The five-day symposium is being organized by Energy Efficiency Services Limited (EESL) in partnership with The World Bank, and Alliance for an Energy Efficient Economy (AEEE).

Some Organizations working on Energy Efficiency:

The Clean Energy Ministerial (CEM)

It is a high-level global forum to promote policies and programs that advance clean energy technology, to share lessons learned and best practices, and to encourage the transition to a global clean energy economy. It also promote efficient energy technology. The CEM is the **initiative of the USA**, at the United Nations Framework Convention on Climate Change conference of parties in Copenhagen in 2009. Presently, 23 countries, including India, are members of CEM. There are 13 initiatives under CEM covering energy efficiency, clean energy supply and cross cutting areas. During the 7th Clean Energy Ministerial, India had launched the **Global Cooling Challenge.** China hosted the eighth Clean Energy Ministerial (CEM8) in Beijing, China, on 6–8 June 2017.

Clean Energy Ministerial Initiatives
- 21st Century Power Partnership
- C3E - Clean Energy Education and Empowerment Initiative
- Clean Energy Solutions Center
- EVI - Electric Vehicles Initiative
- EMWG - Energy Management
- Global LEAP - Global Lighting and Energy Access Partnership
- ISGAN - International Smart Grid Action Network
- Multilateral Solar and Wind Working Group
- SEAD - Super-Efficient Equipment and Appliance Deployment Initiative
- Sustainable Cities and Eco-Energy Towns Initiative

International Partnership for Energy Efficiency Cooperation (IPEEC):

It is an autonomous partnership of nations founded in 2009 by the Group of 8 (G8) to promote collaboration on energy efficiency. Its membership now includes 17 of the Group of 20 (G20) economies.

Alliance for an Energy Efficient Economy:

AEEE is a policy advocacy and energy efficiency market enabler with a not-for-profit motive. It is the only organization in India which works on creating awareness about energy efficiency as a resource. It advocates for data driven and evidence-based energy efficiency policies.

INTERVENTIONS

8.6. First Conservation Reserve for Blackbuck

Why in news?

India's first conservation reserve for black buck is going to be set up Allahabad.

More about Blackbuck

✓ It is also known as the Indian antelope, is an antelope found **in India and Nepal.**

✓ The blackbuck is **the only true antelope** found in India.

✓ It lives in large herds.

✓ The males are black on top and cream below and have beautiful spiral horns that form a 'V' shape.

✓ The Blackbuck formerly occurred across almost the whole of the Indian subcontinent south of the Himalaya.

✓ Their range decreased during the 20th century and they are now extinct in Bangladesh and Pakistan. Blackbucks are still present in the Terai zone of Nepal.

✓ They have been categorised as Least Concern category animal by International Union for Conservation of Nature (IUCN).

8.7. Tiger Counting

What is in News?

Field data collection for tiger enumeration in the country is set to go digital in order to reduce human error and provide more reliable estimates.

More about tiger counting

✓ **M-STRiPES** (**Monitoring System For Tigers-Intensive Protection and Ecological Status**) developed by the Wildlife Institute of India, Dehradun, will be used for the first time for counting tigers accurately.

✓ Use of the app in habitat monitoring is not new. Bandipur had **Hejje or Pugmark**, an Android-based app.

✓ The All India tiger estimation is carried out **once in every four years.** 2018 survey will be the fourth All India tiger estimation so far.

✓ **Wildlife Institute of India** is mandated to carry out the survey under the guidance of **National Tiger Conservation Authority.**

8.8. Tiger Rehabilitation and Tiger Reserves In Rajasthan

✓ Rajasthan government has asked for permission to bring tigers from other States for their rehabilitation and cross-mating in order to develop strong breeds of the big cat.

✓ State government had also sought Centre's nod for shifting of tigers from Ranthambhore to Mukundara Hills Tiger Reserve.

✓ **Ranthambore, Sariska and Mukundara hills** are the three Tiger reserves in Rajasthan.
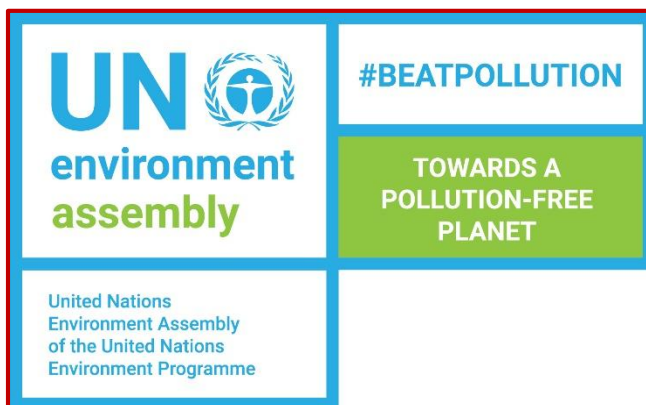
8.9. UN Environment Assembly

Why in news?

There are different reports these days on the upcoming UN Environment Assembly. These were:

a) Solid Waste Management in **Alappuzha:** The district is among the five cities recognised by the United Nations Environment Programme (UNEP) as global success stories in solving the problem of solid waste.

b) **Pollution** is the theme of the 2017 UN Environment Assembly, to be held in Nairobi.

c) The report **'Towards a pollution free planet'** was launched by UNEP ahead of the annual UN environment Assembly.

More about UN Environment Assembly

✓ The United Nations Environment Assembly is the **world's highest-level decision-making body** on the environment.

✓ The Environment Assembly **meets biennially** to set priorities for global environmental policies and develop international environmental law.

✓ It was created in June 2012, when world leaders called for UN Environment to be strengthened and upgraded during the **United Nations Conference on Sustainable Development, also referred to as RIO+20.**

✓ The Assembly is **the governing body of the UN Environment Programme (UN Environment).**

✓ The UN Environment Assembly, with **a universal membership,** is now composed of 193 Member States.

- The 2017 UN Environment Assembly will address five sub-themes: **Water Pollution, Land Pollution, Marine Pollution, Air Pollution, and Sound Management of Chemicals and Waste.**

8.10. Bonn Challenge

Why in news?

Experts call for a more **integrated landscape based approach** for afforestation as envisaged by the Bonn Challenge.

What is Bonn Challenge
- The Bonn Challenge is a **global effort** to bring **150 million** hectares of the **world's deforested and degraded land into restoration by 2020**, and 350 million hectares by 2030.
- It was hosted and launched by **Germany and the International Union for Conservation of Nature** (IUCN) in Bonn in 2011.
- Underlying the Bonn Challenge is the forest landscape restoration (FLR) approach, which aims to restore ecological integrity at the same time as improving human well-being.
- India made a Bonn Challenge commitment to place into restoration **13 million hectares(Mha) of degraded land by 2020 and an additional 8 Mha by 2030**

8.11. BS-IV And BS-VI Emission Norms

Why in news

The Union Ministry of Petroleum and Natural Gas announced that BS-VI fuel norms would be implemented in Delhi by April 1, 2018.

About Bharat Stage emission standards
- Bharat Stage emission standards, introduced in 2000, are emission standards that have been set up by the Central government **to regulate the output of air pollutants** from internal combustion engine equipment, including motor vehicles.
- Timeline and standards are set up by the **Central Pollution Control Board** which comes under the Ministry of Environment and Forests and Climate Change.
- The Bharat Stage norms are based on European regulations.

Petrol Emission Norms (All figures in g/km)

Emission Norm	CO	HC	NOx	HC+NOx	PM
BS-III	2.30	0.20	0.15	---	---
BS-IV	1.00	0.10	0.08	---	---
Euro 6	1.00	0.10	0.06	---	0.005

Diesel Emission Norms (All figures in g/km)

Emission Norm	CO	HC	NOx	HC+NOx	PM
BS-III	0.64	---	0.50	0.56	0.05
BS-IV	0.50	---	0.25	0.30	0.025
Euro 6	0.50	---	0.06	0.17	0.005

8.12. Cyclothon

Why in News?

A first of its kind premier Cyclothon event was flagged off from New Delhi's Jawaharlal Nehru Stadium.

Key Points
- Cyclothon event was conducted to popularize cycling in order to reduce the dependency on fossil fuels.
- The event was overseen by **Ministry of Petroleum and Natural gas.**
- The Cyclothon under the banner of Saksham Pedal Delhi was organized by Petroleum Conservation & Research Association (PCRA), and supported by the oil companies with technical guidance from Cycling Federation of India.

✓ Another 76 such cyclothons are planned Pan-India over the next 2 months to sensitize the country to adopt the ideology of conservation for a greener environment.

8.13. Promulgation of Indian Forest (Amendment) Ordinance, 2017

Why in news?

Ordinance amends Indian Forest Act, 1927 to promote cultivation of bamboo in non-forest areas.

Rationale behind the Amendment

✓ Bamboo, though, taxonomically a grass, was legally defined as a tree under the Indian Forest Act, 1927.

✓ Before this amendment, the felling and transit of bamboo grown on forest as well non-forest land attracted the provisions of the Indian Forest Act, 1927.

✓ This was a major impediment for bamboo cultivation by farmers on non-forest land.

✓ Therefore, the amendment is brought to exempt bamboo grown in non-forest areas from definition of tree, thereby dispensing with the requirement of felling/transit permit for its economic use. It will facilitate the growth of bamboo sector in the north eastern region.

✓ bamboo grown in the forest areas shall continue to be governed by the provisions of Indian Forest Act, 1927.

8.14. LEED

Why in news?

India is reported to be the fourth largest country in LEED projects.

What is LEED?

✓ **Leadership in Energy and Environmental Design (LEED)** is a rating system devised by the **United States Green Building Council (USGBC)** to **evaluate the environmental performance of a building** and encourage market transformation towards sustainable design.

✓ LEED is the most widely used green building rating system in the world.

GRIHA

Green Rating for Integrated Habitat Assessment (GRIHA) conceived by **The Energy and Resources Institute (**TERI) and developed with Ministry of New and Renewable Energy, is the national rating system for green buildings in India.

8.15. One-Horned Rhino

Why in News?

A female rhino and her calf were shot dead and their horns removed by poachers at Kaziranga National Park.

More about one-horned Rhino

- ✓ The Indian rhino has a single horn, which is present **in both sexes.**
- ✓ It is the **largest of all the Asian rhinos.** Considered to be the most amphibious of all the rhino species, the Indian rhino is an excellent swimmer.
- ✓ The preferred habitat of an Indian rhinoceros **is alluvial flood plains and areas containing tall grasslands** along the foothills of the Himalayas.
- ✓ Formerly, extensively distributed in the Gangetic plains, today the species is restricted to small habitats in Indo-Nepal terai and northern West Bengal and Assam.
- ✓ In India, rhinos are mainly found **in Kaziranga NP, Pobitara WLS, Orang NP, Manas NP in Assam, Jaldapara NP and Garumara NP in West Bengal and Dudhwa TR in Uttar Pradesh.**

8.16. Olive Ridley Turtles

What is in News?

Endangered Olive Ridley turtles arrive in large numbers for mating **at Gahirmatha beach, Odisha.**

Key points:

- ✓ The Olive ridley turtles are **the smallest and most abundant** of all sea turtles found in the world
- ✓ It inhabits **tropical warm waters of the Pacific and Indian oceans.**
- ✓ These turtles, along with their cousin the Kemps ridley turtle, are best known for their unique mass nesting called **Arribada,** where thousands of females come together on the same beach to lay eggs.
- ✓ The species is recognized as **Vulnerable** by the IUCN Red list.
- ✓ **The coast of Odisha** in India is the largest mass nesting site for the Olive-ridley turtles.
- ✓ the most severe threat they face is the accidental killing of adult turtles through entanglement in trawl nets and gill nets due to uncontrolled fishing during their mating season around nesting beaches.

8.17. Chinkara

Why in news?

Bishnoi community in Rajyasthan protest against chinkara poaching. The chinkaras are being poached allegedly by the Bawaria community, a Scheduled Caste whose traditional occupation is hunting, at the behest of wealthy local people fond of meat.

More about Chinkara

- ✓ The chinkara is also known as the Indian gazelle and native to Iran, Afganistan, Pakistan and India.
- ✓ Chinkara live in **arid plains and hills, deserts, dry scrub and light forests**.
- ✓ They share their habitat with several other herbivores, such as nilgai, blackbuck, chausingha, wild goats, and wild pigs etc.
- ✓ It is found in Gir, Panna, Ranthambore, Desert, Sariska and Bandhavgarh National Park.

8.18. Coral Reef and Coral Bleaching

Why in news?

Corals, bred in one part of the Great Barrier Reef, was successfully transplanted into another area. With this, scientists hope it could restore damaged ecosystems around the world.

What is Coral bleaching?

- ✓ When corals are stressed by changes in conditions such as **temperature, light, or nutrients**, they expel the symbiotic algae (**zooxanthellae**) living in their tissues, causing them to **turn completely white**. This is called coral bleaching.
- ✓ Bleached corals do not die right away and can survive a bleaching event. However, if temperatures are very hot or are too warm for a long time, corals either die from starvation or disease.

Coral reefs

- ✓ Coral reefs are **diverse underwater ecosystems** held together by **calcium carbonate structures** secreted by corals.
- ✓ Coral reefs are built by colonies of tiny animals found in marine waters that **contain few nutrients**.
- ✓ Most coral reefs are built from stony corals, which in turn consist of **polyps that cluster in groups.**
- ✓ Most reefs grow best in **warm, shallow, clear, sunny and agitated waters.**
- ✓ They are found in **shallow tropical** and **subtropical waters**. This is because the algae found in their tissues need light for photosynthesis and they prefer water temperatures between 22 °C – 29 °C.
- ✓ Often called "**rainforests of the sea",** shallow coral reefs form some of the most diverse ecosystems on Earth.
- ✓ Though they are most commonly found at shallow depths in tropical waters, but **deep water and cold water corals also exist** on smaller scales in other areas.

About Great Barrier Reef

- ✓ The Great Barrier Reef is the world's **largest coral reef system** composed of over 2,900 individual reefs and 900 islands stretching for over 2,300 kilometres.
- ✓ The reef is located in the **Coral Sea**, off the coast of **Queensland, Australia**.
- ✓ The Great Barrier Reef can be seen from outer space and is the world's **biggest single structure** made by living organisms.
- ✓ It has declined by more than half in the last 30 years.
- ✓ The main reason is **climate change; warming waters** and its **increasing acidity** from CO_2 inputs are pushing the reefs past the point of no return.

Approaches for conservation

- *Larval-restoration approach* - collect large amount of coral spawn and eggs, grow them into larvae and then transplant them into areas of damaged reef. Aided by underwater mesh tanks, these corals grow into healthy ones – used in this particular case.
- *Coral gardening approach* - breaking up healthy coral and sticking healthy branches on reefs (in the hope they will regrow), or growing coral in nurseries before transplantation.

8.19. New Ant Species Discovered in the Western Ghats

- It Belongs **to Tyrannomyrmex, a rare tropical genus of ants**
- Discovered in **Western Ghats, one of world's 'hottest hotspots' of biological diversity**
- Was found in **Periyar Tiger Reserve –** Vallakadavu range
- Research published in Zootaxa journal, undertaken by members of NGO Travancore Natural History Society's Ant Research Group.
- Named after **Musthak Ali** – eminent myrmecologist and country's ant man
- Name of the new species: Tyrannomyrex alii (T. alii) Sadasivan and Kripakran 2017

About Tyrannomyrmex

- A **rare myrmicine (subfamily of ants) ant genus.**
- distributed in the **Indomalayan bio-region** – extends from southern India and Sri Lanka to southeast Asia.
- Two Tyrannomyrmex species are discovered in India, both from **Western Ghats in Kerala.**

8.20. Edible Wild Banana – Andaman and Nicobar Islands

Why in news?

Edible wild banana species discovered in **Andaman and Nicobar Islands** It is present in only two locations – latest is in North Andaman's Krishnapuri forest.

More about the species

- It is found away from human habitation.
- Botanical name – **Musa Paramjitiana** – in honour of **Paramjit Singh, Director of Botanical Survey of India.**
- **Features:**
  o Grows to a height of 9 metres
  o Bears an **edible, sweet and sour tasting fruit**
  o Boat-shaped
  o Has numerous bulb shared seeds
  o Part of the diet of local tribes
  o The fruit and seeds have **ethno-medical importance**
  o Pseudo stem and leaves are used during religious and cultural ceremonies

> ***Previous Year Questions***
> ***(2016 Prelims)***
> Recently, our scientists have discovered a new and distinct species of banana plant which attains a height of about 11 metres and has orange-coloured fruit pulp. In which part of India has it been discovered?
> (a)   Andaman Islands
> (b)   Anaimalai Forests
> (c)   Maikala Hills
> (d)   Tropical rain forests of northeast.
> Answer (b)

- Has been declared as **'Critically Endangered' based on IUCN Red List categories and criteria.**
- **Musa Indandamanesis** – another wild banana discovered in 2014 in remote tropical rain forest on Little Andaman Island which has dark green cylindrical flower buds.

8.21. White Tigers

Why in News?

Two white tigers have been spotted in **Nilgiris Biosphere Reserve.**

Features

- White tigers are spotted in wild very rarely. They usually exist in captivity by **continual inbreeding**, such as father to daughter, brother to sister, mother to son and so forth.
- The white tiger is **not considered a tiger subspecies**, but rather a **hybrid mutant variant** of the existing tiger subspecies.
- It is believed by wildlife experts that the tigers' coats are pale due to **reduced levels of the pigment melanin** in a phenomenon called **'leucism'.**

8.22. Nilgiri Biosphere Reserve

- Nilgiri Biosphere Reserve Nature Park is the most popular biosphere reserves in India and the major National Park and Wildlife Sanctuary of South India.
- Nilgiris Biosphere Reserve is India's **first biosphere reserve.**
- It includes the **Mudumalai, Mukurthi, Nagarhole, and Bandipur national parks**, as well as the **Wayanad** wildlife sanctuaries.
- Tribal groups like the *Todas, Kotas, Irullas, Kurumbas, Paniyas, Adiyans, Edanadan Chettis, Cholanaickens, Allar, Malayan, etc.,* are native to the reserve.
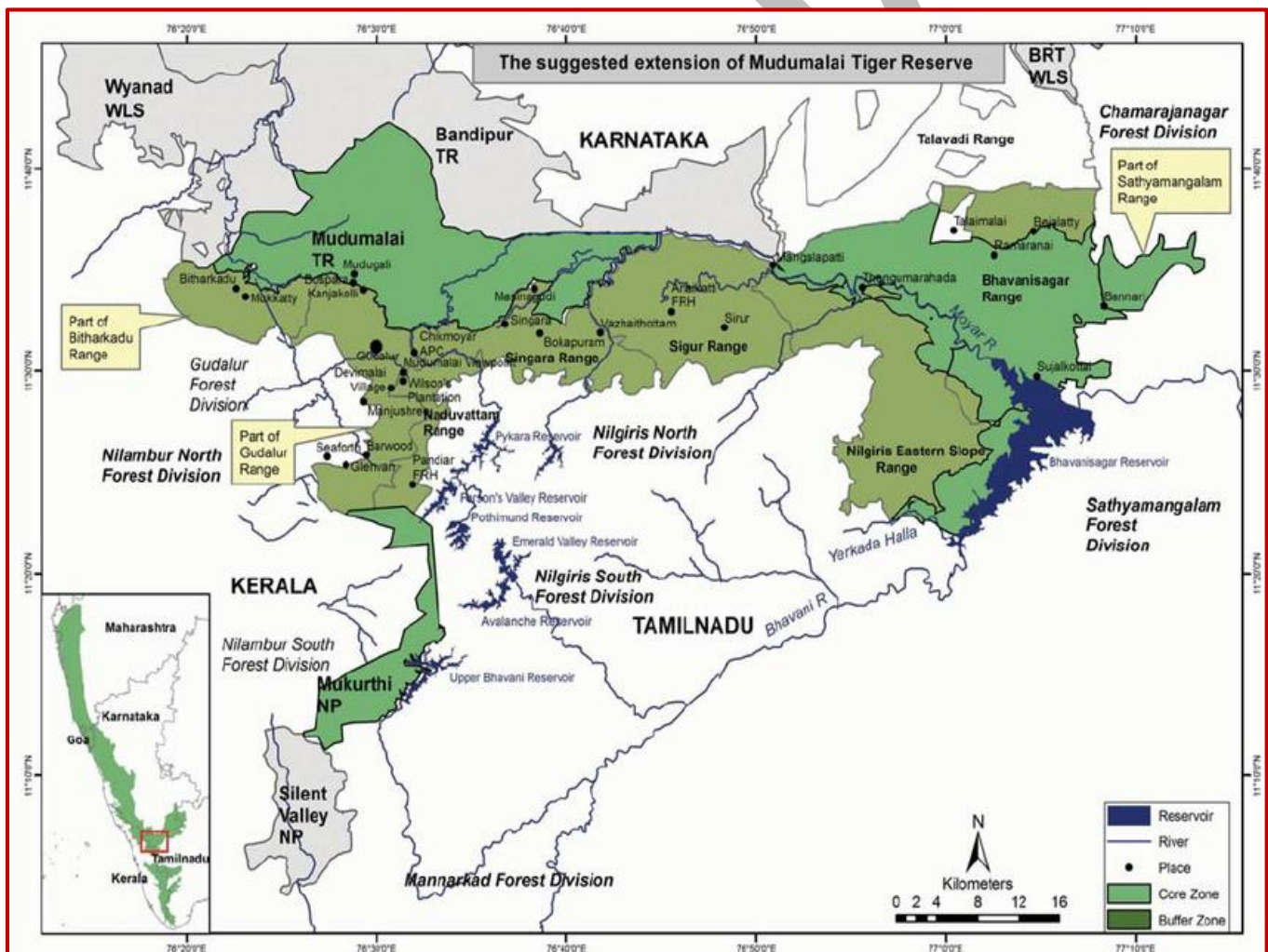
8.23. Bonnet Macaque and Important Primates in India

What is in news?

Recent survey by Tamil Nadu's Salim Ali Centre for Ornithology and Natural History (SACON) found that Bonnet Macaque could go locally extinct in ten years in the peninsular India. It could be losing ground to the larger and more aggressive rhesus macaque of the north. Other factors contributing to their decline include rapid urbanisation (as roadside trees are felled and vegetation lost) and their disappearance from temples and tourist spots.

More about Bonnet Macaque

✓ Bonnet macaques are endemic commensals: they are found only in peninsular India and live in close proximity with humans.

Important Primates and their location

Found in North East: Hoolock Gibbons(only ape found in India), **Capped Langur, Golden langur** (Assam), **pig tailed macaque, Arunachal Macaque, Assam Macaque, Stump-tailed macaque**(Himalayan side).

Other primates:

✓ Rhesus Macaque – Northern India
✓ Bonnet Macaque – Western Ghats and Some parts of Eastern Ghats
✓ Lion Tailed Macaque, Nilgiri Langur – Western Ghats
✓ Slender Loris – South Eastern Ghats
✓ Grey Langur – Himachal Pradesh

8.24. Mahendragiri Gecko

Why in news?

Mahendragiri Gecko, a type of lizard, is identified as a different species. DNA Analysis showed that it has distinct characteristics and traits to **qualify as a different species**. It is called after the herpetologist Sushil Kumar Dutta. It has golden eyes and pale black bordered horizontal bands.

Where is Mahendragiri Hills?

✓ There are **two hills** in the same name of Mahendragiri. One is located in Eastern Ghats in Odisha. The other one is part of the southern tip of Western Ghats, situated in Tamilnadu.
✓ Mahendragiri in Eastern Ghats is known for rich biodiversity and known for its medicinal plants.

9. HISTORY AND CULTURE

CULTURE

9.1. Creative Cities Network

Why is in news?

Inclusion of Chennai in UNESCO creative Cities Network. The city has been included in the UNESCO Creative Cities Network for its **rich musical tradition.**

About Creative City Network

✓ UNESCO Creative Cities Network highlights its members' creativity within seven fields: **Crafts and Folk Art, Design, Film, Gastronomy, Literature, Media Arts and Music.**

- It has a total of 180 cities in 72 countries.
- The Network provides a platform for cities to demonstrate culture's role as an enabler for building sustainable cities.
- **Jaipur and Varanasi** are the other Indian cities that feature on the list.

9.2. Traditional Sports and Festivals In Manipur

Why in news?

President of India inaugurated the **Manipur Sangai Festival,** which is the biggest festival of the state. In the inaugural speech President mentioned Manipur as the capital of Indian sport and referred to variety of traditional sports such as **Sagol Kangjei, Huyen langlon and Yubi lakpi**.

More about the festival:
- It is celebrated for 10 days every November since 2010, this is the perfect showcase for the cultural diversity and richness of Manipur.
- The festival is named after Sangai - an endemic and endangered subspecies of brow-antlered deer whose original habitat is the floating National Park Keibul Lamjao, located in Loktak lake.

Traditional Sports and Martial Arts of Manipur
- **Sagol Kangjei:** (*Sagol means pony / horse, kang means a ball, and jei is a stick used for hitting*.). It is the name of the **game of polo played in Manipur**. While Polo is usually confined to upper crust of society, in Manipur, it has always been a game for the common man. It is a seven - a - side game.
- **Huyen langlon** (*huyen means war while langlon mean knowledge or art*): It is a **martial art from Manipur**. It consists of two main components: **thang-ta** (armed combat) and **sarit sarak** (unarmed fighting). The primary weapons of huyen langlon are the **thang (sword) and ta (spear).** Huyen langlon is closely related to Burmese bando and banshay.
- **Yubi lakpi**(*means "coconut snatching")* : It is a seven-a-side traditional football game played in Manipur, India, using a coconut, which has some notable similarities to rugby.

9.3. Central Board of Film Certification (CBFC)

Why in news

The institution is frequently referred in news related to banning of the screening of the movie 'Padmavati'.

About the organization
- Central Board of Film Certification (CBFC) is a **Statutory body under Ministry of Information and Broadcasting.**
- It **regulates the public exhibition of films** under the provisions of the **Cinematograph Act 1952.**
- Films can be publicly exhibited in India only after they have been certified by the Central Board of Film Certification.
- The Board consists **of non-official members and a Chairman** (all of whom are appointed by Central Government) and functions with headquarters at **Mumbai.**
- The members of the panels are nominated by Central Government by drawing people from different walks of life for a period of 2 years.

Film Certification

The Certification process is in accordance with The Cinematograph Act, 1952, The Cinematograph (certification) Rules, 1983, and the guidelines issued by the Central government u/s 5 (B). At present films are certified under 4 categories
  o U – unrestricted public exhibition

- o A – restricted to Adults
- o UA – unrestricted public exhibition with a word of caution for age under 12
- o S – restricted to any special class of people.

<u>**What kind of questions to expect**</u>

Q) Which of the following Medias are required to seek certification before the presentation?

1. Video and CD versions of a film
2. Public exhibition of a film that has no offensive content
3. T.V programs and serials
4. Advertisement

Select the correct answer from the codes given below:

(a) 1, 3 and 4 only
(b) 2 only
(c) 2, 3 and 4 only
(d) 1 and 2 only

Answer: D | There is no CBFC certification for T.V programs and serials. However, under Cable Television Network (Regulation) Act, 1995 content code / Advertisement code have been prescribed for programme and advertisements appearing in cable TV Network. Video and CD versions of a film also a require certification from CBFC.

9.4. International Film Festival Of India (IFFI)

Why in News

Morocco born French Director Robin Campillo's drama film ' 120 BPM' or **'120 Beats Per Minute'** has won the coveted Golden Peacock Award at the **48th International Film Festival of India (IFFI).**

9.5. Deen Dayal Sparsh Yojana

- ✓ **SPARSH (Scholarship for Promotion of Aptitude & Research in Stamps as a Hobby)** is a **Pan India scholarship program for school children to increase the reach of Philately.** *Philately is the hobby of collection and study of Postage stamps.*
- ✓ Under the scheme of SPARSH (Scholarship for Promotion of Aptitude & Research in Stamps as a Hobby), it is proposed to award annual scholarships to children of Standard VI to IX having good academic record and also pursuing Philately as a hobby through a competitive selection process in all postal circles.
- ✓ Selections under the Deen Dayal SPARSH scheme would be made based on the evaluation of Project work on Philately & performance in Philately Quiz conducted by the Circles.

9.6. Jhiri Festival

Why in news?

Thousands of devotees from different parts of the country thronged the shrines of legendary farmer saint Baba Jitto and his daughter Bua Kaury in the Jhiri village for the nine-day fest.

What is it?

- ✓ It is one of the week-long annual festival in Jammu.
- ✓ The village Jhiri is located about 20 kms from Jammu, off the Jammu-Akhnoor highway.
- ✓ Every year during the Karthik Purnima (Late autumn full moon) falling during the last week of October and early November an annual mela is held here.

- Lakhs of devotees throng the village to commemorate the martyrdom of Baba Jittoo, a farmer who gave up his life in protest against the oppressive demands of the zamindar about 500 years ago.

9.7. Kambala

Why in news?

Kambala began in the coastal belt from November 11 in Karnataka and Kerala and will end by March 18, 2018.

More about Kambala

- It is an annual Buffalo Race held traditionally under the sponsorship of local Tuluva landlords and households in **the coastal district's of Dakshina Kannada and Udupi of Karnataka** which is termed under single region known as Tulu Nadu.
- Kambala has been criticised by animal lovers as they perpetuate cruelty due to the use of whips on the racing buffaloes.

9.8. Aadi Mahotsav

Why in news?

Ministry of Tribal Affairs along with Tribal Cooperative Marketing Development Federation Ltd (TRIFED), is organizing **"AADI MAHOTSAV"** a celebration of the spirit of Tribal Culture, Cuisine and Commerce.

What is it?

- It is a festival that will feature exhibition-cum-sale of tribal handicrafts, art, paintings, fabric, jewellery and much more through 160 stalls.

9.9. Araku Balloon Festival

What is it?

- It is a three day international baloon festival that is promoted by Andhra Pradesh Tourism department.
- The event is aimed at showcasing the Araku Valley, a hill station – known for its panoramic views of the Eastern Ghats, the coffee plantations, and the waterfalls – as a tourist destination.
- This is the first ever edition of this festival and is being attended by sixteen teams from 13 countries, including the US, Malaysia, Taiwan and Switzerland.

Araku Valley

- The Anantagiri and Sunkarimetta Reserved Forest which are part of Araku Valley, are rich in biodiversity.
- This valley is surrounded by mountains like Galikonda, Raktakonda, Sunkarimetta and Chitamogondi.
- These hills are endowed with rich quality bauxite ore. Galikonda hill rising to a height of 5,000 feet (1,500 m) is one of the highest in Andhra Pradesh.

9.10. Jnanpith Award

Why in news?

Renowned Hindi litterateur **Krishna Sobti** has been chosen for this year's Jnanpith Award.

More about the Award

- Jnanpith Award is India's **highest literary honour** presented annually by the Bharatiya Jnanpith to an author for their "outstanding contribution towards literature".
- Instituted in 1961, the award is bestowed only on Indian writers writing in Indian languages included in the **Eighth Schedule to the Constitution of India and English**, with **no posthumous conferral.**
- The award carries **cash prize of 11 lakh rupees,** a citation plaque and a bronze replica of Saraswati, the Hindu goddess of knowledge and wisdom.

9.11. Miss World 2017

Why in news?

India's **Manushi Chhillar** (from Haryana) was crowned as Miss World 2017 held in Sanya in China. She is the sixth Indian woman to be crowned Miss World. Reita Faria was the first Indian to win the crown in the 1966. Aishwarya Rai, Diana Hayden, Yukta Mookhey and Priyanka Chopra had won it for India earlier.

9.12. DSC Prize for South Asian Literature

Why in news?

Sri Lankan author Anuk Arudpragasam bags 2017 DSC Prize for South Asian Literature. Anuk Arudpragasam's "The Story of a Brief Marriage" — a touching tale of a young man trapped on the frontlines between the Sri Lankan army and the Tamil Tigers.

What is it?

✓ The DSC Prize for South Asian Literature was founded in 2010, by its founder, Surina Narula.
✓ Celebrates the rich and varied world of literature of the South Asian region.
✓ Authors could belong to this region through **birth or be of any ethnicity** but the writing **should pertain to the South Asian region in terms of content and theme.**
✓ Aims to raise awareness of South Asian culture around the world.
✓ Over the past seven years, it has emerged as a major literary award.

HISTORY

9.13. Anasuya Sarabhai

Why in news?

Google honoured Anasuya Sarabhai (A pioneer of the women's labour movement in India) with a doodle on her 132nd birth anniversary.

More about Anasuya Sarabhai

✓ She was born in Ahmedabad in 1885 into the Sarabhai, a wealthy family of industrialists and business people.
✓ She started a school for poor students of all castes and creches and toilets for women.
✓ She took the cause of local mill workers after learning of their 36-hour work shifts.
✓ In 1914 she helped Ahmedabad's weavers successfully organise their first strike for higher wages.
✓ She was supported in her work by Mahatma Gandhi and in 1918, Anasuya managed mill owners to accede to the demand of Ahmedabad weavers for a 35% wage hike.

✓ She was affectionately called "Motaben", Gujarati for "elder sister", by those she helped.
✓ Thius eventually led to the founding of the **the Ahmedabad Textile Labour Association (Majoor Mahajan Sangh), India's oldest union of textile workers, in 1920,** which later paved the way for the founding of the **Self-Employed Women's Association of India (SEWA).**

Watch Video on Anasuya Sarabhai in NEO IAS Youtube Channel.

9.14. Temple Excavation in Telengana and Kakatiya Temples

Why in news?

Department of Archaeology and Museums (DAM) have been successful in excavating large portions of the 800-year-old Sri Kasi Visweswara Temple buried under the earth in Telengana.

Sri Kasi Visweswara Temple belongs to Kakatiya period.

Know more about Kakatiya temples

✓ All the Kakatiya temples are dedicated to **Lord Shiva.**

✓ most of the temples are characterized and evolved from **later Chalukyan style of temple architecture and decoration.**

✓ Kakatiya temples have a prominent presence of Nandi who has an independent mandapa for himself in all the temples.

✓ The characteristics of the Kakatiya temples are a **typical Dravidian Vimana** or superstructure, **a star-shaped base.**

✓ **Keerthi Thoranas or the gateways** to temple complexes is unique only to this region and time.

✓ Two most important Kakatiya temples that are still practicing are **Thousand pillar temple at Hanamkonda(in picture) and Ramappa temple at Palampet,** some 70 km's from **Warangal.**

Watch video on Kakatiya Temples on NEO IAS Youtube Channel.

10.   POLITY

(Most of the Polity Questions can be directly answered from a textbook alone. Since these areas are well covered on static textbooks, we avoid repetition here.)

10.1. Revision of Salaries of Judges

Learn Through a Question

Q) A change in the salaries, allowance and pensions of judges of Supreme Court and High Courts can be effected only after

    (a) Law ministry's notification for the same

    (b) Consent and ordinance by the Chief Justice of India

    (c) Amendments in related legislations

    (d) Amendments in the constitutional provision

Answer: C | The Union Cabinet has approved the revision in the salaries, gratuity, allowances, pension etc. of the Judges of the Supreme Court and the High Courts and retired Judges of Supreme Court and High Courts.

*Salaries, gratuity, pension, allowances etc. in respect of Judges of Supreme Court are governed by **the Supreme Court Judges (Salaries and Conditions of Service) Act, 1958.** Salaries etc. of Judges of High Courts are governed by High Court Judges (Salaries and Conditions of Service) Act, 1954. **An amendment in the Acts is required** whenever there is any proposal for revision of salaries/pension gratuity, allowances etc. in respect of Judges of Supreme Court and High Courts. Therefore, Government proposes to move a Bill in the Parliament in the ensuing Session for amendment in the relevant Acts for giving effect to the revision of salaries and allowances.*

10.2. NOTA

Why in news?

Supreme Court rejected a public interest litigation petition suggesting fresh elections whenever the public chose overwhelmingly the "None of the Above" (NOTA) option. *Please take note of some of the characteristics of NOTA in India:*

More about NOTA

✓ Election Commission of India had introduced 'NOTA' – 'None of the Above' option on ballot papers **pursuant to Supreme Court's Order in 2013.**

✓ The main objective of the 'NOTA' option is to enable electors who do not wish to vote for any of the candidates to exercise their **right not to vote** for any candidate without violation of the secrecy of their decision.

✓ Even though votes cast as NOTA are counted, they are **considered as invalid votes** so they **will not change** the outcome of the election process.

What kind of questions to expect?

Q) Consider the following statement with regard to NOTA option in Elections:

1. NOTA in election does not provide for a 'right to reject'.
2. if NOTA votes exceed candidates' fresh polls are conducted.
3. There is no symbols for NOTA option.

Which of the statements given above is/are correct?

    (a) 1 and 2 only

    (b) 1 only

    (c) 2 and 3 only

    (d) All of the above

Answer: B

- They are not taken into account for calculating the total valid votes and will not be considered for determining the forfeiture of security deposit.
- Therefore, NOTA in effect, **does not provide for a 'right to reject'.** It merely provide the right to not to vote.
- India became the 14th country to institute negative voting
- The specific symbol for NOTA, **a ballot paper with a black cross across it**, was introduced on in 2015.
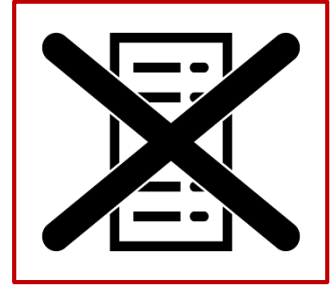
10.3. Inter-State Council

Why in news?

In the 12th meeting of the Standing Committee of Inter-State Council (ISC), Union Home Minister explained steps taken by the Central Government to promote cooperative federalism.

More about Inter-State Council

- **Article 263** of Indian Constitution provides for the establishment of an Inter-state Council for
    - inquiring into and advising upon disputes which may have arisen between States;
    - investigating and discussing subjects in which some or all of the States, or the Union and one or more of the States, have a common interest
    - making recommendations upon any such subject and, in particular, recommendations for the better co-ordination of policy and action with respect to that subject.
- Article 263 makes it clear, the Inter-State Council is *not a permanent constitutional body* for coordination between the States of the Union.
- It can be established 'at any time' if it appears to the President that the public interests would be served by the establishment of such a Council.
- Thus, The Inter-State Council was established **under Article 263** of the Constitution of India **through a Presidential Order** dated 28 May 1990.

Composition

- The Council shall consist of:-
    - Prime Minister - Chairman
    - Chief Ministers of all States - Member
    - Chief Ministers of Union Territories having a Legislative Assembly and
    - Administrators of UTs not having a Legislative Assembly – Member
    - Six Ministers of Cabinet rank in the Union Council of Ministers to be nominated by the Prime Minister - Member

	Statements	✅❌
1	International Criminal Court is one of the principle organ of United nations.	🟥
2	India is a member of International Energy Agency.	🟥
3	Incheon Strategy aims to considerably lower the disaster risks.	🟥
4	Balfour declaration supports a national home for the Jewish people.	🟩
5	Lebanon is located along the coast of Mediterranean sea.	🟩
6	Vietnam was the Chair of ASEAN for 2017.	🟥
7	Bandhan express connects India and Bangladesh	🟩
8	Dengue is a Neglected Tropical Disease.	🟩
9	BGR34 is an ayurvedic medicine for Tuberculosis.	🟥
10	Namami Gange is funded completely by central government.	🟩
11	People First Campaign is organized to encourage democratic decentralisation.	🟥
12	Forest Right Act doesn't allow grazing in forests.	🟥
13	Purchasing Managers Index gives idea about the performance of both manufacture and service sector.	🟩
14	Diversion of funds tantamount to wilful default.	🟩
15	There is no central authority to manage the liquidity of bitcoin.	🟩
16	Trycyclozole is a fertiliser recently banned in Europe.	🟥
17	Composition Scheme targets small taxpayers.	🟩
18	Mission 41K aims to improve financial position of Public Sector Banks	🟥
19	FAME Scheme covers 2 wheelers, 3 wheelers and 4 wheelers only.	🟥
20	Price Stabilization Fund is designed to ensure Minimum Support Price for rice and wheat.	🟥
21	GI Tag is also granted to manufactured goods.	🟩
22	Global Entrepreneurship Summit is hosted by Niti Ayog and US government.	🟩
23	World Economic Outlook is published by International Monetary Fund.	🟩
24	One horned rhino can be naturally found in Uttar Pradesh, West Bengal and Assam.	🟩
25	Nilgiri Biosphere is spread over three states.	🟩
26	Chennai is the second city to be included in UNESCO's Creative City network	🟥
27	Huyen Langon is a martial art form from Manipur.	🟩
28	T V Programs and serials require certification for broadcasting.	🟥
29	There is no symbol for NOTA option in elections.	🟥
30	It is mandatory to convene Inter-State Council once in every six months.	🟥
31	Global Gender Gap Index is published by UNDP	🟥
32	Preventing school dropout is one of the major objective of ICDS.	🟩
33	Paracel Islands are located in southern Indian Ocean	🟥

34	Peace Clause is recently in news with regard to climate change negotiations	
35	Bonn Challenge aims to conserve forests.	
36	Mullaperiyar dam is located on the river Periyar.	
37	Catalonian region shares border with France.	
38	Mount Agung and Mount Tambora are volcanoes in Indonesia.	
39	Smog is consisted mainly of Carbon dioxide.	
40	Petcoke is a byproduct of oil refining process.	
41	Malaria is caused by a parasite.	
42	Corona is the outermost layer of Sun.	
43	Hyperloop system lowers the cost of space missions.	
44	Aflotoxins are produced by fungi.	
45	Anti-Microbial Resistance can be reversed.	
46	Italy and Japan were the focus countries of World Food India 2017.	
47	PRAGATI eGovernance Platform connects Prime Ministers' Office with Chief Secretaries.	
48	UMANG app helps in providing information on climate change.	
49	Competition Commission of India is headed by Minister of Finance.	
50	Commissioner of Railway Safety works under the administrative control of Ministry of Civil Aviation.	

NEO IAS monthly digests are prepared by a team who have consistently scored 140+ in UPSC Prelims. But we are also hungry to improve ourselves in terms of content, style and presentation to suit your study methods. Feel free to contact us with your suggestions at:

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