My Notes....

NATIONAL

FIRST MISSION OF PSLV-DL

India's Polar Satellite Launch Vehicle (PSLV-C44) successfully injected **Microsat-R and Kalamsat-V2 satellites into their designated orbits**. The PSLV-C44 lifted off at 23:37 Hrs (IST) on January 24, 2019 from the First Launch Pad at Satish Dhawan Space Centre SHAR, Sriharikota in its 46th flight. About 13 minutes 26 seconds after lift-off, **Microsat-R was successfully injected into intended orbit of 274 km**. Subsequently, **the fourth stage (PS4)** of the vehicle was moved to a higher circular orbit of **453 km** after two restarts of the stage, to establish an orbital platform for carrying out experiments.

What

1. **Kalamsat-V2**, a student payload, first to use PS4 as an orbital platform, was taken to its designated orbit about 1 hour and 40 minutes after lift-off.
2. This flight marked the **first mission of PSLV-DL**, a new variant of PSLV with two strap-on motors.
3. In the previous PSLV launch on November 29, **PSLV-C43 had successfully launched India's HysIS** as well as 30 customer satellites from abroad.
4. The PSLV-C44 mission was unique as it was for **the first time ISRO used the last stage of the rocket as a platform to perform experiments in space**.
5. This new low cost technology will help students to conduct several inspiring experiments in space by attaching their instruments to the last stage of the rocket.

KALAMSAT-V2 SPECIFICATIONS

- **WEIGHT** 1.26 KG
- **COST OF MAKING** ₹ 12 LAKH
- **TIME TAKEN** 6 DAYS

- First satellite designed, built by an Indian private entity "Space Kidz India"
- ISRO to launch the satellite for free of cost
- ISRO to convert the last stage of the rocket into working experimental platform

MICROSAT-R SPECIFICATIONS

- **WEIGHT** 740 KG

- Will take high-resolution photos of the Earth for defence research.

About Kamalsat

1. **Kalamsat is a communication satellite** with a **life span of two months**
2. The nanosatellite is a 10cm cube **weighing 1.2 kg**
3. The satellite cost was about Rs 12 lakh
4. Kalamsat will be the **first to use the rocket's fourth stage as an orbital platform**. The fourth stage will be moved to higher circular orbit so as to establish an orbital platform for carrying out experiments
5. It is named after former Indian president **Dr APJ Abdul Kalam** and was built by an Indian high school student team, **led by Rifath Sharook,** an 18-year-old from the Tamil Nadu town of Pallapatti
6. It is the **world's lightest** and **first ever 3D-printed satellite**

About Microsat-R

1. **Microsat-R is an small Indian earth observation satellite** built for the Indian military Defence Research and Development Organization (DRDO).
2. The satellite has a launch mass of 740 kg and will be orbit the earth at a height of 274 km, much lower than the Cartosat satellites to increase resolution.

3. It was built by a handful of DRDO laboratories, not by ISRO.

Milestones

1. It was the **70th launch vehicle mission** from SDSC SHAR
2. It was the **46th flight of the Polar Satellite Launch Vehicle**
3. It was the **35th launch from the first launch pad**
4. It was the **first flight of the PSLV-DL** (with 2 strap-ons)
5. It was the **first launch of 2019**

SUBHASH CHANDRA BOSE AAPDA PRABANDHAN PURASKAR

Government has instituted an annual award titled **Subhash Chandra Bose Aapda Prabandhan Puraskar**. The award is to be announced **every year on 23rd January** on the **birth anniversary of Netaji Subhash Chandra Bose**. In the aftermath of any disaster, many organisations and individuals work silently but effectively **to alleviate suffering of the affected population**. Their immense contribution and selfless service to humanity often goes unacknowledged. Keeping this in view, Prime Minister, Shri Narendra Modi, has advised to institute a National Award so as to recognise the efforts of such organisations and individuals.

What

1. **All Indian Citizens and organizations**, who have **excelled in areas of Disaster Management**; like Prevention, Mitigation, Preparedness, Rescue, Response, Relief, Rehabilitation, Research/ Innovations or Early Warning are eligible for the Subhash Chandra Bose Aapda Prabandhan Puraskar.
2. The award scheme for the year 2019 was given wide publicity and nominations of the award were solicited from 19th Dec 2018 onwards. Last date for receipt of Nominations was 07th Jan 2019. The response to the award scheme was overwhelming with over 300 nominations from Institutions and Individuals.
3. For the year 2019, 8th Battalion of **National Disaster Response Force (NDRF) located at Ghaziabad has been selected for the Subhash Chandra Bose Aapda Prabandhan Puraskar** for its commendable work in Disaster Management. The Award recipient will receive a certificate and a cash prize of Rs. 51 lakh:
4. The **8th Battalion of NDRF was raised in 2006** and is a highly specialised Rescue and Response Force with large area of responsibility covering National Capital Region (NCR), Uttarakhand, western UP & Haryana.
5. It has participated in 314 major Operations and rescued over 50,000 people. In the recent Kerala Floods, the battalion rescued 5338 victims & evacuated 24,000 persons to safety.
6. Other major disasters in which this NDRF battalion participated are **Leh Cloud Burst (2011)**, **Kedarnath Floods (2013)**, **Cyclone Hudhud (2014)**, **Chennai Floods (2015)** and **Tripura Floods (2018)**.
7. The battalion had worked efficiently to neutralise the threat during Radiation Incident at Mayapuri, Delhi during the year 2010.
8. They have also done commendable Disaster Management related work internationally. In the aftermath of Nepal Earthquake in 2015, six teams of the battalion were amongst the first responders to land at Kathmandu.
9. Their teams were also sent to Japan during **Fukushima Daiichi nuclear disaster (2011)** and **recent Tsunami in Indonesia (2018)**.
10. In addition to the response and relief work, the 8th Battalion NDRF has trained large number of first responders from SDRF, NCC, Civil Defense, Homeguard, Nehru Yuva Kendra Sangathan and Nepal Police. The Community based Capacity Building Programmes run by the battalion has benefited over nine lakh people.

CPI 2018

India has improved its ranking on a global corruption index in 2018, while its neighbour **China lagged far behind**, according to the annual index released by an **anti-graft watchdog** on 29 January 2019. **India rose by three points to 78 in the list of 180 countries in the world**, while **China ranked 87** and Pakistan 117 in 2018, the Transparency International said in its **Corruption Perceptions Index (CPI) for 2018**.

What

1. As India gears up for its upcoming elections, we see **little significant movement in its CPI score**, which **moved from 40 in 2017 to 41 in 2018**, the global watchdog said.

2. Despite spectacular public mobilisation in 2011, where citizens demanded that the government take action against corruption and advocated for the passage of the comprehensive Jan Lokpal Act, these efforts ultimately fizzled and fell flat, with little to no movement on the ground to build the **specialist anti-corruption infrastructure** required, it said.

3. The top countries on the list are **Denmark and New Zealand**, with scores of 88 and 87 respectively. Somalia, Syria and South Sudan are at the bottom of the list, with scores of 10, 13 and 13 respectively. Overall, more than two-thirds of countries score below 50 in the 2018 CPI, with an average score of only 43.

> **About the Corruption Perceptions Index**
> 1. **Since its inception in 1995**, the Corruption Perceptions Index, Transparency International's flagship research product, has become the leading global indicator of public sector corruption.
> 2. **The index offers an annual snapshot of the relative degree of corruption** by ranking countries and territories from all over the globe.
> 3. In 2012, Transparency International revised the methodology used **to construct the index to allow for comparison of scores from one year to the next**.

4. With a score of 71, **the US has dropped four points since last year**. This marks the first time since 2011 that the US falls outside of the top 20 countries on the CPI.

5. A four point drop in the CPI score is a red flag and comes at a time when the US is experiencing threats to its system of checks and balances, as well as an erosion of ethical norms at the highest levels of power.

6. If this trend continues, it would indicate a serious corruption problem in a country that has taken a lead on the issue globally. This is a bipartisan issue that requires a bipartisan solution.

7. **Transparency International** is the global civil society organisation leading the fight against **corruption for the last 25 years**.

Corruption and the crisis of Democracy

1. **Cross analysis with global democracy data** reveals a **link between corruption and the health of democracies**.

2. **Full democracies score an average of 75** on the CPI; **flawed democracies score an average of 49**; **hybrid regimes** – which show elements of autocratic tendencies – **score 35**; autocratic regimes perform worst, with an average score of just 30 on the CPI.

3. More generally, countries with high levels of corruption can be dangerous places for political opponents. Practically all of the countries where political killings are ordered or condoned by the government are rated as highly corrupt on the CPI.

GLOBAL TALENT COMPETITIVENESS RANKING

India has moved up one position to rank 80th on the global talent competitive index, but remains a laggard among the BRICS nations, a new survey showed. **Switzerland continues to top the list**, released on the first day of the World Economic Forum (WEF) Annual Meeting in Davos by **INSEAD business school in partnership with Tata Communications and Adecco Group**.

What

1. **With an overall position of 45th** and despite a fall of two places, China is the best performer among BRICS countries, while India remains the laggard of this grouping, the report said.
2. However, **India performed better than its lower-income peers** when it comes to **growing talent (48th)** and access to **growth opportunities (41st)**.
3. Notwithstanding the scope for improvement across the board, India's biggest challenge is to **improve its ability to attract (95th)** and **retain (96th) talent**.
4. Above all, there is a need to address its poor level of Internal Openness (116th) -- in particular with respect to weak gender equality and low tolerance towards minorities and immigrants and its disappointing showing in lifestyle (112th) indicators.
5. The survey measures **how countries and cities grow, attract and retain talent**, ranking 125 countries and 114 cities across all groups of income and levels of development.
6. The study also found that entrepreneurial talent has become a key differentiator in relative talent competitiveness.
7. Switzerland is followed by Singapore, the US, Norway and Denmark in the top five on the list.
8. **The talent gap between higher and lower-income countries has increased over the last five years**, the survey said, while noting that countries in Asia, Latin America and Africa are seeing a progressive erosion of their talent base.
9. The report also said cities rather than countries are developing stronger roles as talent hubs and will be crucial in reshaping the global talent scene.
10. The top-ranked city this year is **Washington, DC**, followed by Copenhagen, Oslo, Vienna and Zurich.

INNOVATIVE INDEX 2019

In a major development, **India has debuted among the world's most innovative countries**, according to a report. In **Bloomberg 2019 Innovative Index**, India has **grabbed the 54th position among 95 countries**. **South Korea has retained the top spot**, though improvements by Germany in research and education brought Europe's largest economy to near-parity in the annual ranking. Notably, **South Korea has got a total score of 87.38**, while **Germany has received a score of 87.30**. Explaining the process behind how the nations were assigned a score, Bloomberg said that **the 2019 ranking process began with more than 200 economies**.

What

1. **Each was scored on a 0-100 scale** based on **seven equally weighted categories**. Nations that didn't report data for at least six categories were eliminated, trimming the total list to 95," Bloomberg reported.

2. The annual Bloomberg Innovation Index **analyzes dozens of criteria using seven metrics**, including research and development spending, manufacturing capability and concentration of high-tech public companies.

Innovation Index	
Country	**Rank**
South Korea	1
Germany	2
Finland	3
Switzerland	4
Israel	5
Singapore	6
Sweden	7
America	8
Japan	9
France	10

3. The ranking comes even as global elites meet at the **ongoing annual World Economic Forum in Davos, Switzerland**, where they will discuss the future of globalization, the role of the state and how innovation propels countries forward.

4. **Finland, with a score of 85.70 came third on the list**, followed by Switzerland, with a score of 85.49. Israel came in at the 5th spot with a score of 84.78.

5. **The U.K. fell one spot to 18th** and lost out to China for the first time ever in the Bloomberg rankings.

6. China's score reflects a dichotomy in the world's second-largest economy: it ranked No. 2 in patent activity on the strength of R&D from Huawei Technologies Co. and BOE Technology Group, but still lags behind most innovative alums in overall productivity, noted the report.

UNNATI LAUNCHED

The Indian Space Research Organisation (Isro) on 17 January 2019 announced officially the introduction of **Unispace Nanosatellites Assembly and Training by Isro (UNNATI)**. Under this scheme, **Isro will train personnel from foreign countries that the space agency works with**. The programme provides an opportunity for the participant countries to strengthen their capabilities in assembling integrating and testing nanosatellites. The course for the first batch commenced this month and will be completed by March 2019. This will be followed by two more batches starting October 15, 2019 and October 15, 2020. The first batch has 30 participants from 17 different countries, PJVKS Prakash Rao, who is leading the programme from Isro, said.

What

1. The programme was launched following an announcement made by Isro chairman K Sivan during a **symposium in Vienna on June 18, 2018**.

2. The symposium was held to commemorate the 50th anniversary of the **First United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE+50)**.

3. The programme will be conducted by **Isro's UR Rao Satellite Centre (URSC) in Bengaluru every year** for the next three years. It is recognised as one of the UNISPCE+50 initiatives.

4. "The programme aims at **capacity building in satellite technology for the participating countries** by providing hands-on experience in building and testing of nanosatellites. Among its objectives are to offer a simplified and increased exposure to satellite fabrication technologies.

NITI-LED PANEL FORMED FOR PRICING OF DRUGS

The government **constituted a standing committee headed by Niti Aayog** to **oversee the drug pricing regime**, a move which could clip the powers of drug pricing regulator, **National Pharmaceutical Pricing Authority (NPPA)**. The Standing

Committee on Affordable Medicines and Health Products will be headed by NITI Aayog member (health), and includes chief economic adviser, besides secretary department of health research, director general of health services, vice-chairperson, **National List of Essential Medicines (NLEM)** and joint secretary department of industrial policy and promotion.

What

1. The notification issued says **the committee will be "a recommending body to NPPA**, regarding prices of drugs and health products", and may examine **issues suo-moto or on recommendation of department of pharma**, NPPA and department of health.

2. The development comes in the backdrop of recent run-ins between the health and pharma ministries over regulating prices, but now the power centre could be shifting to the policy thinktank.

3. The proposal has been in the works for nearly a year, and was first discussed in April between Niti Aayog and PMO, with the objective of amending the Drug Price Control Order, 2013.

4. Health activists feel the committee has been vested with sweeping powers to oversee the pricing regime, at the cost of undermining NPPA, and this may have repercussions on affordability of drugs.

IAFTX- 2019

The final planning conference to work out the modalities for **Indian Africa Field Training Exercise (IAFTX)-2019** is being conducted at Pune on 23-24 January 2019. Delegates from **Egypt, Ghana, Nigeria, Senegal, Sudan, South Africa, Tanzania, Namibia, Mozambique, Uganda, Niger & Zambia** attended the conference.

What

1. **Indian Africa Field Training Exercise (IAFTX)-2019** is scheduled to be conducted at **Aundh Military Station and College of Military Engineering, Pune** from 18 March to 27 March 2019.

2. The joint training exercise is being conducted with more than a dozen African countries & India. It aims at synergysing humanitarian mine action and joint peace operations. The initial planning conference for the exercise was held in December 2018.

3. **The IAFTX-2019 is a positive step** towards growing political and military ties with the member nations of African continent and will boost the already strong strategic cooperation between the countries.

INS KOHASSA

Naval Air Station (NAS) Shibpur was commissioned as **INS Kohassa** by Admiral Sunil Lanba, PVSM, AVSM, ADC, Chairman COSC and Chief of the Naval Staff on 24 Jan 19. The grand ceremony was attended by many dignitaries and senior officials including VAdm Bimal Verma, AVSM, ADC Commander-in-Chief, Andaman and Nicobar Command. The ceremony included presentation of Ceremonial Guard, hoisting of the Commissioning Pennant and reading of the Ship's Warrant by the Commanding Officer, Commander Kuldeep Tripathi. **INS Kohassa has been named after a White-Bellied Sea Eagle**, which is a large bird of prey, endemic to Andaman and Nicobar Islands.

What

1. **NAS Shibpur was established in 2001** as a **Forward Operating Air Base (FOAB)** for enhanced surveillance in North Andaman.

2. The close proximity of Coco Islands (Myanmar) and wide expanse of **Indian Exclusive Economic Zone (EEZ)** makes the base a very vital asset.

3. The airfield provides sustained detached operations of Indian Navy, Indian Air Force and Coast Guard aircraft. The Air Station presently operates Short Range Maritime Reconnaissance (SRMR) aircraft and helicopters.

4. These aircraft undertake EEZ Surveillance, Anti-Poaching Missions, Search and Rescue (SAR) and Humanitarian Aid and Disaster Relief (HADR) missions within the ANC Area of Responsibility.

5. As a point of interest, during the search operations of the Malaysian Airlines Flight 370, Dornier DO 228s of the Navy and Coast Guard operated from this very base.

6. **NAS Shibpur was identified by NITI Aayog as one of the 'Early Bird' project** as part of holistic **island development**.

7. Towards this, IN has been ready in all respects to facilitate civil flight operations from NAS Shibpur. The runway extension to 10,000 ft is also planned in the near future to facilitate operations of wide-bodied aircraft.

SIX PROJECT 75(I) SUBMARINES APPROVED

In a major decision, the Defence Ministry 31 January 2019 approved indigenous **construction of six submarines for the Indian Navy** at a cost of over Rs 40,000 crore. This was decided at a meeting of the **Defence Acquisition Council (DAC)**, the ministry's highest decision-making body on procurement. The DAC, presided over by Defence Minister Nirmala Sitharaman, also approved acquisition of approximately **5,000 Milan anti-tank guided missiles for the Army**.

What

1. **The project to construct the six submarines** will be implemented under the **strategic partnership model** which provides for roping in private firm to build select military platforms in India in partnership with foreign defence manufacturers.

2. **It will be the second project to be implemented under the strategic partnership model**. The first project to get government's nod for implementation under the new model was acquisition of 111 utility helicopters for the Navy at a cost of over Rs 21,000 crore.

3. Construction of six submarines under **Project 75 (I)** will provide a major boost to the existing submarine design and manufacturing eco-system in India through the transfer of design and equipment technology as well as a necessary skill sets.

Flashback

1. **The Project 75I-class submarine is follow-on of the Project 75 Kalvari-class submarines** for the Indian Navy.

2. Under this project, the Indian Navy intends to acquire six diesel-electric submarines, which will also feature advanced Air-independent propulsion (AIP) systems to enable them to stay submerged for longer duration and substantially increase their operational range.

3. In October 2014, the project got clearance from Defence Acquisition Council. All six submarines are expected to be constructed in Indian shipyards.

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INTERNATIONAL

PALESTINE TAKES OVER REINS OF G77

UN Secretary-General Antonio Guterres welcomed the "**historic leadership" of Palestine which assumed the chairmanship of G77**, the global body's largest intergovernmental **organisation of developing countries including India**. **Egypt was the previous Chair of the Group of 77 (G77)**, a coalition of **134 members**, along with China which aligns itself with the bloc.

What

1. The decision to elect **Palestine as the 2019 Chair of the G77 was taken in September**, 2018 by the foreign ministers of the Groups' member states.
2. A month later, the UN General Assembly approved a resolution that enabled Palestine – a non-member Observer State at the world body – additional privileges and rights, such as participating in international conferences held under its auspices, for the duration of **its role as G77 Chair**.
3. As multilateralism continues to come under "intense pressure from many sides", the UN chief underscored the importance of the G77 and China's continued support.
4. The **Group of 77 and China have demonstrated strong leadership throughout 2018** and proved once again to be a central force in demonstrating that multilateralism is the only way to address our shared challenges.
5. **G-77, established in 1964** by **77 developing countries in Geneva**, claims to provide the means for the countries of the South to articulate and promote their collective economic interests and enhance their joint negotiating capacity on all major international economic issues within the UN system and promote South-South cooperation for development.

UNESCO CELEBRATES 150 YEARS OF PERIODIC TABLE

The periodic table of chemical elements is having its **150th birthday**, and the UN scientific agency is holding a year of events to celebrate. Anyone who has studied chemistry will recognize the table, **which organizes all chemical elements by the number of protons** in a given atom and other properties. Russian scientist **Dmitry Mendeleev published the first such table in 1969**.

What

1. The **UN Education, Scientific and Cultural Organization** kicked off the "International Year of the Period Table of Chemical Elements" on 29 January 2019 with a ceremony including a Nobel chemistry laureate and Russia's science minister, among other dignitaries.
2. Other activities UNESCO is organizing this year include an online competition to test high school students' knowledge of the table, and scientific experiments brought to schools around the world.
3. **The Periodic Table of Chemical Elements** is one of the most significant achievements in science, capturing the essence not only of chemistry, but also of physics and biology.
4. It is a unique tool, enabling scientist to predict the appearance and properties of matter on the Earth and in the rest of the Universe.
5. The Periodic Table of Chemical Elements is more than just a guide or catalogue of the entire known atoms in the universe; it is essentially a window on the universe, helping to expand our understanding of the world around us.
6. **The year 2019 marks the 150th anniversary** of its creation by Russian scientist Dmitry Ivanovich Mendeleev.

DEAL TO GET URANIUM FROM UZBEKISTAN

India and Uzbekistan signed a deal for long-term supply of uranium from the resource rich **Central Asian country** to power its domestic atomic reactors. The deal was signed during Uzbek President Shavkat Mirziyoyev's visit to the Vibrant Gujarat business summit in Gandhinagar, his second trip to India since October. **After Kazakhstan, Uzbekistan will become the second Central Asian country to supply uranium to India**.
What

1. The two sides have negotiated the uranium supply for years and it was only in 2017 that Mirziyoyev, who came to power in 2016, decided to concretise the deal.

2. **Uzbekistan is the seventh largest exporter of uranium in the world**, according to the **World Nuclear Association**, an international organisation that represents the global nuclear industry.

3. India needs nuclear fuel as part of a plan to create a strategic uranium reserve that can sustain the country's reactors for the next five years.

4. In the past, India's reactors have under performed due to a shortage of uranium arising out of sanctions imposed by the West after the **1974 Pokhran nuclear tests**.

> **Flashback**
> 1. The **World Nuclear Association (WNA)** is the international organization that promotes nuclear power and supports the companies that comprise the global nuclear industry.
> 2. **Its members come from all parts of the nuclear fuel cycle**, including uranium mining, uranium conversion, uranium enrichment, nuclear fuel fabrication, plant manufacture, transport, and the disposition of used nuclear fuel as well as electricity generation itself.
> 3. Together, WNA members are responsible for 70% of the world's nuclear power as well as the vast majority of world uranium, conversion and enrichment production.
> 4. **The WNA was founded in 2001** on the basis of the Uranium Institute, itself founded in 1975.

5. **India currently imports uranium from Kazakhstan and Canada** and plans to also purchase the fuel from Australia.

6. The uranium is used primarily to fuel its indigenously built pressurised heavy water reactors. India procures enriched uranium from Russia for its two boiling water reactors at Tarapur in Maharashtra.

CHINA'S LUNAR PROBE SEES FIRST SPROUT

A cotton seed carried to the Moon by China's recent **Chang'e-4 probe** has sprouted **the first for any biological matter to grow on the Moon**. Images sent back by the probe showed that a cotton sprout had grown well, though no other plant was found growing. On January 3, **China's robotic spacecraft Chang'e-4 landed** on the far side of the moon, a **first in the human history of space exploration**. **The 1.3-tonne lander**, which made a soft landing on the Moon, carried the seeds of cotton, oilseed rape, potato and arabidopsis, as well as eggs of the fruit fly and some yeast, to form a simple mini biosphere, according to a team led by scientists from Chongqing University in southwest China.
What

1. Plants have been grown on the International Space Station before but never on the Moon.

2. **The ability to grow plants on the Moon will be integral for long-term space missions** like a trip to Mars which would take about two-and-a-half years.

3. It would mean that astronauts could potentially harvest their own food in space, reducing the need to come back down to Earth to re-supply.

4. The plants are kept in a sealed container on board the Chang'e-4 lander. The crops will try to form a mini biosphere — an artificial, **self-sustaining environment**.

5. The lunar mini biosphere experiment on the lander is designed to test photosynthesis and respiration — processes in living organisms that result in the production of energy.

6. The whole experiment is contained within an 18 cm tall, 3 kg canister that was designed by **28 Chinese universities**.

INDIA INKS PROTOCOL TO REVIVE EXPORT TO CHINA

This recent period has seen significant progress in market access for **six agriculture and allied products from India** as it seeks to curb its staggering $63 billion trade deficit with China. In a bid to reduce its **burgeoning trade deficit with China**, India has signed a protocol to revive the export of tobacco leaves to Beijing. **The first such agreement was signed in 2008**.

What

1. **The revival of the phytosanitary protocol with China** will pave the way for revival of Indian tobacco exports to China and prove economically beneficial to Indian farmers, department of commerce said on 28 January 2019.

2. The development comes after China allowed imports of **non-Basmati rice and sugar from India**. It is also keen to import pomegranate, grapes, soymeal, fish oil and fish meal from India.

3. This recent period has seen significant progress in market access for six agriculture and allied products from India as it seeks to curb its staggering $63 billion trade deficit with China.

4. "Quality tobacco on par with international standards is available in India at competitive prices and there is good potential for export of Indian tobacco to China, the department said.

5. India has also sought faster market access for other products like okra, soya bean, bovine meat and dairy products.

PAKISTAN SUCCESSFULLY TEST-FIRES 'NASR'

Pakistan Army on 31 January 2018 successfully **test-fired the short range surface-to-surface ballistic missile 'Nasr'** which it claimed can defeat any ballistic missile defence system now available in the country's neighbourhood or any other system being developed. **Nasr, with a strike range of about 70-km**, is a high precision, shoot and scoot weapon system with the ability of in-flight maneuverability. The missile was already tested last week.

What

1. The 2nd phase of this exercise was **aimed at testing the extreme inflight maneuverability**, including the end flight maneuverability; **capable of defeating**, by assured penetration, any currently available BMD system in our neighborhood or any other system under procurement/development.

2. Chairman Joint Chiefs of Staff Committee General Zubair Mahmood Hayat appreciated the participating troops, scientists and engineers on "achieving yet another milestone of national significance towards Pakistan's strategic deterrence capability."

3. Pakistan's President Arif Alvi, Prime Minister Imran Khan and services chiefs also congratulated the scientists, engineers and the participating troops on successful conduct of the training launch, the army said.

ECONOMY

FIRST EVER CORE ICT PANEL

Government thinktank **Niti Aayog has proposed setting up of a commission for core information and communication technologies (ICT)** in order **to achieve a 5% share in the global market** with revenue potential of Rs 7,00,000 crore in **10 years**. **The commission, modelled on the lines of space and atomic energy commissions**, will have full executive and financial powers with an annual budget of Rs 100 crore.

What

1. The Cabinet note will be moved soon for **inter-ministerial consultations regarding the same**. The government feels that to promote information and telecommunications or digital technologies, it is important to set up this ICT commission, which will be free from all non-essential restrictions or needlessly inelastic rules.

2. The **core ICT**, which is the **foundation of India's national security**, especially due to growing digitalisation, currently has negligible share of **around 0.2% in the global industry of this technological sector**.

3. **Core ICT** is seen as the most important technology capability in the modern era and India's absence in this sector is matter of serious concern.

4. Despite over 30 years of efforts by different governments, Indian presence in this critical sector has remained at negligible levels while many countries like China and South Korea are becoming significant participants.

5. There is an imminent need to create a policy-making structure that will address this critical vulnerability and import dependence of India on other countries.

6. The **commission will formulate policy interventions for the growth of the core ICT sector in the country** in terms of attracting global manufacturers for setting up factories in India and implement policies in all matters concerning core ICT manufacturing.

7. As per the proposal, **Delhi will be the headquarter of the commission** and it can open offices anywhere in the world in support of its mission.

8. It can employ people of any nationality to bring in the right knowledge base for a maximum term of 10 years.

IBBI SETS UP PANEL

The insolvency regulator has set up a **working group under former Sebi chairman UK Sinha** to recommend a **complete regulatory framework to facilitate insolvency resolution and liquidation of debtors** in a corporate group within the **Insolvency and Bankruptcy Code (IBC)**. At present, the **IBC provides for the resolution or liquidation of only individual stressed companies**. So a framework within the IBC is sought to be created for the resolution/liquidation of an entire stressed corporate group having several entities in multiple NCLT jurisdictions.

What

1. The working group, with seven members and four invitees, will submit its report in two months, the **Insolvency and Bankruptcy Board of India (IBBI)** said in a statement.

2. It comprises seven members, including the chairman, and four invitees. Apart from Sinha, other members are Anshula Kant, managing director at SBI; Shardul Shroff, chairman of Shardul Amarchand Mangaldas; Shubhashis Gangopadhyay, founder of India Development Foundation; Siby Antony, chairman of Edelweiss Asset Reconstruction; Koushik Chatterjee, chief financial officer at Tata Steel; and insolvency professional Sumit Binani.

3. **The two-year-old IBC has been the most successful mechanism to recover debt**. A recent RBI report suggested that the average recovery by banks, based on the amount filed through the IBC, was as much as 41.3% in FY18, against just 12.4% through other mechanisms such as the **SARFAESI Act**, **Debt Recovery Tribunals** and **Lok Adalats**.

Highlights of the Code
1. **The Code creates time-bound processes for insolvency resolution of companies and individuals**. These processes will be completed **within 180 days**. If insolvency cannot be resolved, the assets of the borrowers may be sold to repay creditors.
2. The resolution processes will be conducted by licensed **insolvency professionals (IPs)**. This IPs will be members of insolvency professional agencies (IPAs). IPAs will also furnish performance bonds equal to the assets of a company under insolvency resolution.
3. **Information utilities (IUs)** will be established to collect, collate and disseminate financial information to facilitate insolvency resolution.
4. The **National Company Law Tribunal (NCLT)** will adjudicate insolvency resolution for companies. The **Debt Recovery Tribunal (DRT)** will adjudicate insolvency resolution for individuals.
5. The Insolvency and Bankruptcy Board of India will be set up to regulate functioning of **IPs, IPAs and IUs**.

MINISTERIAL PANEL TO RESOLVE GST ISSUES

The government has **constituted an eight-member ministerial panel** to **study and resolve issues that are hurting the lottery business in the country** as a result of implementation of the **Goods and Services Tax (GST)**. **Currently, GST on lotteries run by state governments is 12%** while those operated by private distributors is **28%, the highest possible rate**. The Centre wants to charge both at the maximum rate while states are keen on maintaining the distinction.

What
1. The panel has been set **six terms of reference** which include the most crucial question of whether the **two kinds of lotteries should attract the same rate of tax**.
2. The members will also suggest remedial steps if private distributors are found to be misusing the lower GST rate and hence evading taxes.
3. A decision to form a panel was taken at GST Council's last meeting on January 10. Maharashtra Finance Minister **Sudhir Mungantiwar is the convener of the panel**.
4. Other members of the panel are finance ministers of Kerala, West Bengal, Assam, Punjab and Karnataka, Goa's minister of panchayat and Arunachal Pradesh's minister of taxes and excise.
5. The panel will submit its findings and recommendations at the **next meeting of the GST Council**.

Flashback
1. **GST (Goods and Services Tax) is an indirect tax** that has **replaced many Central and State taxes like excise duty, VAT and service tax**.
2. It is a single comprehensive tax levied on all goods and services produced in India as well as those imported from other countries.
3. **The new tax regime came into effect on July 1, 2017**.

CAPITAL INFUSION IN EXIM BANK APPROVED

The Union Cabinet 16 January 2019 **approved fund infusion in Export-Import Bank of India (Exim Bank)**. The infusion would **help the bank expand its business**. The government had provided for Rs 500 crore towards capital infusion in the Exim Bank in the budget for this fiscal. The government had infused Rs 500 crore in Exim Bank last financial year.

What

1. It serves as a growth engine for industries and small and medium enterprises through a wide range of products and services.
2. This includes import of technology and export product development, export production, export marketing, pre-shipment and post-shipment and overseas investment.
3. **Export–Import Bank of India is the premier export finance institution in India**, established in 1982 under **Export-Import Bank of India Act 1981**.
4. Since its inception, Exim Bank of India has been both a catalyst and a key player in the promotion of cross border trade and investment.
5. **Exim Bank is managed by a Board of Directors**, which has representatives from the Government, Reserve Bank of India, Export Credit Guarantee Corporation of India, a financial institution, public sector banks, and the business community.

NATIONAL BENCH OF THE GSTAT

The Union Cabinet, chaired by the Prime Minister Shri Narendra Modi, **has approved the creation of National Bench of the Goods and Services Tax Appellate Tribunal (GSTAT)**. The **National Bench of the Appellate Tribunal shall be situated at New Delhi**. GSTAT shall be presided over by the President and shall consist of one Technical Member (Centre) and one Technical Member (State). The creation of the National Bench of the GSTAT would amount to the one time expenditure of Rs.92.50 lakh while the recurring expenditure would be Rs.6.86 crore per annum.

What

1. **Goods and Services Tax Appellate Tribunal** is the forum of **second appeal in GST laws** and the **first common forum of dispute resolution between Centre and States**.
2. The appeals against the orders in first appeals issued by the Appellate Authorities under the Central and State GST Acts lie before the GST Appellate Tribunal, which is common under the Central as well as State GST Acts.
3. Being a common forum, GST Appellate Tribunal will ensure that there is uniformity in redressal of disputes arising under GST, and therefore, in implementation of GST across the country.
4. **Chapter XVIII of the CGST Act** provides for the Appeal and Review Mechanism for dispute resolution under the GST Regime.
5. **Section 109 of this Chapter under CGST Act empowers the Central Government to constitute, on the recommendation of Council**, by notification, with effect from such date as may be specified therein, an Appellate Tribunal known as the Goods and Services Tax Appellate Tribunal for hearing appeals against the orders passed by the Appellate Authority or the Revisional Authority.

STANDBY SWAP IN SAARC

The Union Cabinet, chaired by the Prime Minister Shri Narendra Modi has **given ex-post facto approval for amendment to the 'Framework on Currency Swap**

Arrangement for SAARC Member Countries' to incorporate a '**Standby Swap**' amounting to USD 400 million operated within the overall size of the Facility of USD 2 billion and build in flexibility **with respect to modalities of its operation**, such as period of swap, roll over, etc. after due consideration of conditions of requesting SAARC member countries and domestic requirements of India.

Salient features

1. **Due to heightened financial risk and volatility in global economy**, short term swap requirements of SAARC countries could be higher than the agreed lines.
2. The incorporation of 'Standby Swap' within the approved **SAARC Swap Framework** would provide necessary flexibility to the Framework and would enable India to provide a prompt response to the current request from SAARC member countries for availing the swap amount exceeding the present limit prescribed under the SAARC Swap Framework.

Background

1. Cabinet approved the **Framework on Currency Swap Arrangement for SAARC Member Countries on March 1, 2012** with the intention to provide a line of funding for short term foreign exchange requirements or to meet balance of payments crises till longer term arrangements are made or the issue is resolved in the short-term itself.
2. Under the Facility, **RBI offers swaps of varying sizes in USD, Euro or INR to each SAARC member country** depending on their two months import requirement and **not exceeding US$ 2 billion in total**.
3. The swap amount for each country has been defined in the above Facility, subject to a floor of USD 100 Million and a maximum of USD 400 Million. Each Drawal will be for three months tenor and upto maximum of two rollovers.
4. RBI will negotiate the operational details bilaterally with the Central Banks of the SAARC countries availing the Standby Swap.

FDI IN 2017-18 JUMPS OF 18%

Foreign direct investment (FDI) during the **previous fiscal grew 18 per cent to Rs 28.25 lakh crore**, data from the **Reserve Bank of India (RBI)** showed 28 January 2019. **FDI increased by Rs 4,33,300 crore**, including revaluation of past investments, during 2017-18 to reach Rs 28,24,600 crore in March 2018 at market value, according to RBI data on '**Census on Foreign Liabilities and Assets of Indian Direct Investment Companies, 2017-18**'.

What

1. The RBI said as **many as 23,065 companies responded to the latest round of the census**, of which, 20,732 firms had FDI or ODI in their balance sheet in March 2018. Overseas direct investment (ODI) by Indian companies increased by 5 per cent to Rs 5.28 lakh crore.
2. FDI companies witnessed a substantial increase in other investment liabilities, largely due to the increase in trade credit.

Flashback

1. **Foreign direct investment (FDI)** is an investment made by a firm or individual in one country into business interests located in another country.
2. Generally, FDI takes place when an investor establishes foreign business operations or acquires foreign business assets, including establishing ownership or controlling interest in a foreign company.
3. **Foreign direct investments are distinguished from portfolio investments** in which an investor merely purchases equities of foreign-based companies.

3. The census showed that **Mauritius continued to be the largest source of FDI in India** (19.7 per cent) followed by the **US, the UK, Singapore and Japan**.

4. In case of overseas investment by Indian companies, Singapore (17.5 per cent) was the major destination, followed by the Netherlands, Mauritius and the US.

5. Manufacturing sector had majority share in total FDI. 'Information and communication services' and 'financial and insurance activities' were other major recipients of FDI. The RBI said the data released are the provisional results of 2017-18.

6. In the census participating companies, 15,104 were common from the previous census round and 5,628 reported for the first time. Besides, 1,916 companies that reported in the previous round did not report in the latest round.

7. At the aggregate level, foreign equity participation was very high as 84 per cent of the companies that reported inward FDI were subsidiaries of foreign companies (i.e., single foreign investor holding more than 50 per cent of total equity).

SCIENCE AND TECHNOLOGY

INDIA RANKS THIRD IN ARTIFICIAL INTELLIGENCE

India ranks third in the world in terms of high quality research publications in artificial intelligence (AI) but is at a significant distance from world leader **China**, according to an analysis by research agency **Itihaasa**, which was founded by Kris Gopalakrishnan, former CEO and co-founder of Infosys. The agency computed the number of 'citable documents'— the number of research publications in peer-reviewed journals — in the field of AI between 2013-2017 as listed out by **Scimago**, a compendium that tracks trends in scientific research publications.

What

1. **India, while third in the world with 12,135 documents, trailed behind China with 37, 918 documents** and the United States with 32,421 documents.

2. However, when parsed by another metric 'citations'— or the number of times an article is referenced — India ranked only fifth and trailed the United Kingdom, Canada, the U.S. and China.

3. This suggests that India must work at improving the quality of its research output in AI, one of the authors of the report 'Landscape of AI/ML (Machine Learning) Research In India.

4. Given India's traditional strength in information technology and AI said to pose a transformation in industry and academic circles, the report was an attempt at mapping the state of AI-based research in India.

5. There were only about 50 to 75 principal researchers in the AI-space in India and they were tended to collaborate with each other. The Indian Institutes of Technology and the Indian Institutes of Information Technology were among the key centres for AI research.

6. The report authors **interviewed 25 AI researchers across the country**, who said that as of now "...there was adequate support and funding from the government and industry for AI research."

7. Healthcare, financial services, monsoon forecasting, retail and education were the key fields likely to benefit from AI and the field was "unlikely to lead" to a destruction of jobs — a key global concern regarding the field.

8. India's national think-tank, the NITI Ayog, last June released a discussion paper on the transformative potential of AI in India that said the country could **add $1 trillion to its economy through integrating AI into its economy**.

WHAT IS POLAR VORTEX

Meteorologists have blamed a phenomenon called the **polar vortex** for the bitter cold that has **descended on much of the central and eastern United States** this week, forcing residents to huddle indoors, closing schools and businesses and cancelling flights. **The cold front was forecast to hit the Midwest** especially hard, with wind chill expected to **plummet to minus 50F (minus 46C) in Chicago** by 29 January 2019 evening and two feet (60cm) of snow predicted for Wisconsin. As **ominous as the term polar vortex sounds**, meteorologists say the phenomenon is not new, nor despite its sound does it refer to a cyclone of cold or a freakishly dangerous storm.

What

1. The term '**polar vortex' has become more commonly used in the past couple of years** but the phenomenon has been around forever.
2. There is some debate among scientists about whether polar vortexes have become more frequent and, if so, what effect climate change might be having on them.
3. Heavy snow and gusting winds created blizzard-like conditions Monday across parts of the Midwest, prompting officials to close hundreds of schools, courthouses and businesses. Forecasters warn that dangerously cold weather is soon to follow.
4. **Polar vortex refers to the upper level jet stream** that typically circulates around both the **North and South Poles**, keeping the coldest air there.
5. When that jet stream occasionally weakens and buckles, it disrupts weather patterns – bumping warmer air into Alaska and pushing cold winds down into the US Midwest and East Coast.

ARTIFICIAL THYMIC ORGANOIDS

Scientists have developed a **new technique to turn pluripotent stem cells** — which can give **rise to every cell type in the body** — into mature **T cells** capable of killing tumours. **T**he technique developed by researchers at the **University of California, Los Angeles (UCLA) in the US** uses structures called **artificial thymic organoids**, which work by mimicking the environment of the thymus, the organ in which **T cells develop from blood stem cells**.

What

1. **T cells are cells of the immune system that fight infections**, but also have the potential to eliminate cancer cells.
2. The ability to create them from **self-renewing pluripotent stem cells** using the new technique could lead to new approaches to cancer immunotherapy, according to the study published in the journal Cell 'Stem Cell'.
3. The advance could spur further research on **T cell therapies for viral infections such as HIV**, and autoimmune diseases. Among the technique's most promising aspects is that it can be combined with gene editing approaches to create a virtually unlimited **supply of T cells** able to be used across large numbers of patients, without the need to use a patient's own T cells. **T cell therapies, including CAR T-cell therapy**, have shown great promise for treating certain types of cancer.
4. Current approaches involve collecting T cells from a patient, **genetically engineering the T cells** with a receptor that helps them recognise and destroy cancer cells, and then infusing the cells back into the patient.
5. However, engineered T cells do not always function well, treatment is expensive because it is tailored to each patient, and some people with cancer don't have enough T cells to undergo the therapy.

6. **A technique that produces T cells without relying on collecting them from patients is an important step towards making T cell therapies** more accessible, affordable and effective, researchers said.

7. The researchers previously demonstrated that the **3D structure of an artificial thymic organoid** allowed mature T cells to develop from adult blood stem cells.

8. The **3D structure of the artificial thymic organoid** seems to provide the right supportive signals and environment needed for mature T cells to properly develop.

Flashback

1. A stem cell is a cell with the **unique ability to develop into specialised cell types in the body**. In the future they may be used to replace cells and tissues that have been damaged or lost due to disease.

2. **Stem cells provide new cells for the body as it grows**, and replace specialised cells that are damaged or lost.

3. They have two unique properties that enable them to do this: They **can divide over and over again to produce new cells**.

4. As they divide, **they can change into the other types of cell** that make up the body.

5. There are three main types of stem cell: **embryonic stem cells**, **adult stem cells** and **induced pluripotent stem cells**

DNA TOOL TRACE YOUR ANCESTRY

Scientists have created a DNA tool that **can accurately identify ancient populations**, and may be used to test an **individual's similarity to ancient people who once roamed the earth**. Currently, the study of ancient DNA requires a lot of information to classify a skeleton to a population or find its **biogeographical origins**. Scientists at the University of Sheffield in the UK have defined a new concept called **Ancient Ancestry Informative Markers (aAIMs)** — a group of mutations that are sufficiently informative to identify and classify ancient populations.

What

1. The research, led by Eran Elhaik, from University of Sheffield in the UK, saw the **identification of a small group of aAIMs** that can be used to classify skeletons to ancient populations.

2. **AIMs (Ancestry Informative Markers)** have a long history in science and have been employed for the past decade by health and forensic experts.

3. The most meaningless, dangerous phrase in genetics is "**The gene for X**," says Steve Jones, because the more we learn about DNA the less important it seems.

4. Elhaik said that when his team applied **traditional AIMs-finding tools to ancient DNA data**, they were disappointed with their low accuracy. "Ancient populations are much more diverse than modern ones. Their diversity was reduced over the years following events such as the Neolithic revolution and the Black Death.

5. Although we have many more people today they are all far more similar to each other than ancient people. In addition, the ancient data themselves are problematic due to the large amount of degraded DNA.

6. To overcome these challenges, Elhaik developed a specialised tool that identifies aAIMs by combining traditional methodology with a novel one that takes into account a mixture.

7. Researchers said to make the findings more accurate for identifying and classifying ancient people throughout the world, the framework and methods of

the study should be applied again when more comprehensive ancient DNA databases are available.

SATURN'S RINGS ARE YOUNGER THAN THOUGHT

Saturn's rings are one of our solar system's magnificent sights, but may be a relatively recent addition, according to data obtained from **NASA's Cassini spacecraft** before the **robotic explorer's 2017 death plunge** into the giant gas planet. Scientists said that a calculation of the mass of the rings based on **gravitational measurements of the planet collected by Cassini** indicated they formed between 100 million and 10 million years ago in roughly the final **2% of Saturn's current age**.

What

1. The findings challenge the notion favoured by some astronomers that the rings developed soon after Saturn formed about 4.5 billion years ago along with the other planets, including the earth.
2. Others felt the rings were much younger, but lacked crucial data like their mass to estimate their age reliably.
3. **The ring mass turned out to be 45% lower than previous estimates based on 1980s data** from NASA's Voyager spacecraft. Lower mass indicates a younger age.
4. Scientists suspect the rings formed perhaps when a **large icy comet or moon ventured too close to Saturn** and was shattered by gravitational forces or moons collided in orbit. Scientists hope that they can, in the future, get samples of ring material to find the precise date of origin.

MYSTERY ORBITS IN OUTER SOLAR SYSTEM

The strange orbits of some objects in the outermost reaches of our solar system are not shaped by the **hypothesised 'Planet Nine'**, but can be explained by the **gravitational force of small bodies orbiting the Sun beyond Neptune**, scientists say. The alternative explanation to the so-called **'Planet Nine' hypothesis** by researchers at the University of Cambridge in the UK and colleagues proposes a disc made up of **small icy bodies with a combined mass as much as ten times that of Earth**. When combined with a simplified model of the solar system, **the gravitational forces of the hypothesised disc can account for the unusual orbital architecture** exhibited by some objects at the outer reaches of the solar system, according to the study published in the Astronomical Journal.

What

1. **The new theory is not the first to propose** that the gravitational forces of a massive disc made of small objects could avoid the need for a **ninth planet**.
2. However, **it is the first such theory which is able to explain the significant features of the observed orbits** while accounting for the mass and gravity of the other eight planets in our solar system.
3. **Beyond the orbit of Neptune lies the Kuiper Belt**, which is made up of small bodies left over from the formation of the solar system.
4. Neptune and the other giant planets gravitationally influence the objects in the Kuiper Belt and beyond, collectively known as **trans-Neptunian Objects (TNOs)**, which encircle the Sun on nearly-circular paths from almost all directions.
5. Since 2003, around **30 TNOs on highly elliptical orbits** have been spotted: they stand out from the rest of the TNOs by sharing, on average, the same spatial orientation.
6. This type of clustering cannot be explained by the existing eight-planet solar system architecture and has led to some astronomers hypothesising that the

unusual orbits could be influenced by the existence of an as-yet-unknown ninth planet.

7. **The 'Planet Nine' hypothesis suggests that to account for the unusual orbits of these TNOs**, there would have to be another planet, believed to be about ten times more massive than Earth, lurking in the distant reaches of the solar system and '**shepherding' the TNOs in the same direction through the combined effect of its gravity** and that of the rest of the solar system.

8. The Planet Nine hypothesis is a fascinating one, but if the hypothesised ninth planet exists, it has so far avoided detection.

MISCELLANEOUS

BHARAT RATNA 2019

Former president **Pranab Mukherjee**, Bharatiya Jana Sangh leader **Nanaji Deshmukh** and singer **Bhupen Hazarika** were conferred the **country's highest civilian award Bharat Ratna**. The Bharat Ratna has been conferred **after a gap of four years**. Former Prime Minister **Atal Bihari Vajpayee** and founder of Banaras Hindu University **Madan Mohan Malviya** were given the award by the Narendra Modi government in 2015.

What

1. The government said Deshmukh and Hazarika were conferred the award posthumously. **Mukherjee, fondly known as 'Pranab Da'**, was the president between 2012 and 2017.

2. **The 83-year-old Mukherjee**, who was also known as the quintessential Man of the Congress, joins the elite club with Sarvepalli Radhakrishnan, Rajendra Prasad, Zakir Hussain and V V Giri who had been conferred the coveted award.

3. **Mukherjee became India's youngest finance minister in 1982** at the age of 47. From 2004, he went on to head three crucial ministries - external affairs, defence and finance -and became the first occupant of the Rashtrapati Bhavan to have this distinction.

4. **Deshmukh was associated with Rashtriya Swayamsevak Sangh since 1928** till his death in Satna, Madhya Pradesh, in 2010 at the age of 94 and was known for starting the chain of RSS inspired schools throughout India.

5. **He was one of the founder members of Bharatiya Jan Sangh** which later evolved as Bharatiya Janta Party.

6. **He was considered to be one of the architects of the Jai Prakash Narain movement** against Emergency in 1974 and among the key persons in the formation of Janata Party government in 1977.

7. Born in 1926, Hazarika was an playback singer, lyricist, musician, singer, poet and film-maker from Assam.

8. A recipient of Sangeet Natak Akademi Award (1987), Padmashri (1977), Padmabhushan (2001) and Padma Vibhushan (2012-posthumously), Hazarika was also awarded with Dada Saheb Phalke Award in 1992.

9. Hazarika did his Phd from Columbia University in 1952. He died in 2011.

10. The cultural icon also had a brush with politics and had unsuccessfully contested the Guwahati Lok Sabha seat on a BJP ticket in 2004. He was an independent MLA in Assam during 1967-72.

11. **Hazarika gave music in Bollywood movies Rudaali, Darmiyaan, Gaja Gamini, Daman** and many Assamese hits, including award winning film 'Sameli Memsaab'.

12. With these three recipients, **48 eminent people have been conferred the award so far**.

WHY CITIZENSHIP BILL HAS CREATED A ROW

The Citizenship (Amendment) Bill, 2016, has led to protests in the North-East after its passage in the Lok Sabha. Opposition to the bill stems from fears that it will give legitimacy to illegal migrants in India.

What is the purpose of the Citizenship (Amendment) Bill, 2016?

1. **The Citizenship (Amendment) Bill, 2016** aims **to provide citizenship to those who had been forced to seek shelter in India** because of religious persecution or fear of persecution in their home countries.
2. They are primarily **Hindus, Sikhs, Jains, Buddhists, Parsis and Christians** from **Afghanistan, Pakistan and Bangladesh**.
3. This is a drastic change from the provisions of the **Citizenship Act of 1955** that label a person an "**illegal immigrant**" if he or she has entered India without travel documents or has overstayed the date specified in the documents.

Why has the bill caused a controversy?

1. The citizenship amendment bill, which was passed by the Lok Sabha, has led to political backlash in Assam and caused unrest in the rest of the North-east, with protests by **ethnic Assamese groups.**
2. Assamese organizations say that as a result of the bill the burden of illegal migrants will be passed on to the state alone.
3. The bill drew flak from opposition parties in the Rajya Sabha for **excluding Muslims from countries such as Nepal and Sri Lanka**.
4. These parties are likely to push for the citizenship amendment bill to be referred to a select committee before it is discussed in the Rajya Sabha.

What does the centre say?

1. The centre says **the amendment is for migrants** who came through the **eastern and western borders and are staying in India**.
2. The burden will be shared by the entire country, with the centre willing to help to implement it.

Is it at cross-purposes with the National Register of Citizens (NRC)?

1. **NRC was updated under the Citizenship Act** to wean out illegal immigrants from Bangladesh and other countries.
2. The legacy data—**the collective list of the NRC data of 1951** and the electoral rolls till 24 March 1971—is being analysed to update NRC.
3. The amendment paves the way for non-Muslim minorities **who came to Assam from Bangladesh between 1 January 1966 and 24 March 1974 to get citizenship**.
4. This negates the NRC exercise; say ethnic Assamese groups and regional parties.

ASER REPORT 2018

The data on children studying in primary classes shows a ray of hope. Most children studying in **primary classes (1 to 5)** have been displaying improved reading and math skills and, contrary to the belief, it is the government schools which are scripting the new change. For the first time since 2010, around 50 percent of children in Class 5 can read a Class 2 textbook, up from 46.9% in 2012. The **Annual Status of Education Report (ASER-2018)** said that the **turnaround in primary education** indicates sustained efforts by the Centre and state governments to ensure better learning outcomes. It reports that in 2018, **27.9 percent of students in Class 5 can perform division from the earlier 24.9**

percent in 2012. On similar lines, reading levels – ability to read Class 2 textbooks – for Class 3 students have been witnessing a continuous upsurge since it hit a low of 19.5 percent in 2010. It now hovers around 27 percent.

What

1. The government schools in **eight states – Himachal Pradesh, Uttar Pradesh, Odisha, Chhattisgarh, Karnataka, Kerala, Mizoram, and Arunachal Pradesh** – have recorded a jump of more than **5 percentage points over 2016 in basic reading levels**.

2. In terms of increase in the basic arithmetic levels, government schools in **10 states** – Punjab, UP, Assam, Chhattisgarh, Maharashtra, Kerala, Tamil Nadu, Nagaland, Mizoram and Arunachal Pradesh – have registered a growth of more than 5 percentage points over the same period.

3. Interestingly in UP, the government schools registered an 11.9 percent growth in the reading skills for Class 5 students, reaching 36.2 percent while private schools saw only 7.6 percent increase.

4. Among all the states, **Himachal Pradesh emerged as the front runner in 2018** with the highest reading abilities among primary class children across the country at 74.5 percent, followed by Kerala at 73.1 percent. Jharkhand is at the last spot with only 29.4 percent, according to ASER 2018 report.

5. A household-based survey of children's schooling and learning status, ASER records the schooling status for children of ages 3-16. It also tests children of ages 5-16 for their ability to read simple text and do basic arithmetic.

6. Since ASER is a rural survey, the urban areas have not been included in the survey outcome. **The ASER data is broadly representative of the district, state, and national levels**.

GANDHI PEACE PRIZE FOR 2015 TO 2018

After a gap of four years, the Centre announced the **awardees for the prestigious Gandhi Peace Prize for 2015 to 2018**. While **Vivekananda Kendra, Kanyakumari** won the award for 2015 **for rural development and education**, **for 2016**, the award has been jointly given to **Akshaya Patra Foundation** for providing mid-day meals to children across the country and **Sulabh International** for its work towards emancipation of manual scavengers, the Ministry of Culture announced. **For 2017**, the award has been given to **Ekai Abhiyan Trust** for its contribution to education for rural and tribal children and **for 2018, to WHO Goodwill Ambassador Yohei Sasakawa for his role in leprosy eradication**.

What

1. **The Gandhi Peace Prize**, which is given to individuals and institutions for their contribution towards **social, economic and political transformation** through **non-violence and other Gandhian methods**, was last conferred upon the Indian Space Research Organisation in 2014.

2. This is the first time that the awardees of four years have been announced together ever since the award was **instituted in 1995**.

3. As per the code of procedure on the Ministry of Culture's website, the award should ideally be announced on Gandhi Jayanti, October 2, each year.

4. An official of the Ministry of Culture, the nodal agency which receives proposals for conferring the award, said nominations were made during the last four years for the award, but an approval was awaited.

5. The decision to confer these awards was taken at a meeting of the five-member jury **chaired by Prime Minister Narendra Modi**, with Leader of the Congress in Lok Sabha Mallikarjun Kharge, BJP leader L K Advani, Lok Sabha Speaker

Sumitra Mahajan and Chief Justice Ranjan Gogoi as members. The award carries a cash prize of Rs 1 crore, a citation and a handicraft item.

6. **The International Gandhi Peace Prize was instituted by the government on the 125th birth anniversary of Mahatma Gandhi** and is open to people of all nationalities. The award was jointly given in **2000 to Nelson Mandela and Grameen Bank of Bangladesh**.

INDIAN UNIVERSITIES MOVE UP IN GLOBAL RANKING

India has improved its showing in the prestigious university rankings of **Times Higher Education Emerging Economies** with **49 institutions** making it to the list including **25 in the top 200**. **China remains the most represented nation** in the annual 2019 listing, claiming four of the table's top five positions with Tsinghua University topping the chart, according to the **London-based Times Higher Education (THE)**, a global organisation that produces data, analysis and expertise on higher education. Leading India again is the **Indian Institute of Science (14th)**, followed by the **Indian Institute of Technology Bombay (27th)**.

What

1. However, both of them slipped back a place this year, **largely due to increased competition**. The 2019 ranking comprises nearly **450 universities** – expanded from 378 last year – from 43 countries, across four continents.

2. This year's **table presents a mixed picture for India**, with several new entrants and high risers, alongside several institutions that dropped back.

3. **India has increased its representation in the Times Higher Education Emerging Economies University Rankings** with 49 universities in the list as compared to 42 in 2018.

4. **India has 25 universities in the top 200**, a **rise from 17 last year**. The **Indian Institute of Technology Roorkee, however, scales 21 places** – and into the top 40 – at 35th, thanks in particular to improvements in its research (volume, income and reputation) and industry income (knowledge transfer).

5. **The Indian Institute of Technology Indore (61st)** and the **JSS Academy of Higher Education and Research (joint 64th)** are the highest new entrants for India this year.

6. **Savitribai Phule Pune University climbs an impressive 87 positions** to joint 93rd, alongside the National Autonomous University of Mexico, with a rise in its research score, and a significant rise to its citations (research influence) score.

7. Meanwhile, **Banaras Hindu University and Amrita University both scaled this year into the top 150**, while the Indian Institute of Science Education and Research, Pune and Indian Institute of Technology Hyderabad featured for the first time in this group. Elsewhere, mainland China remains the most represented nation in the annual listing, with 72 institutions in total.

8. The Communist giant claimed four of the table's top five positions. **Tsinghua University surpasses Peking University as this year's top institution overall**, while Zhejiang University rises three positions to 3rd, the University of Science and Technology of China climbs one place to 4th, with Lomonosov Moscow State University completing 2019's top five.

FIRST EVER LAUREUS WORLD SPORTS AWARD FOR INDIAN

Star wrestler **Vinesh Phogat became the first Indian to be nominated for the prestigious Laureus World Sports Award**. Vinesh has been nominated in "**Laureus World Sporting Comeback**" category for the year 2019 and **will be competing for the award with golf great Tiger Woods**, Canadian **snowboarder Mark McMorris**, American alpine ski

racer **Lindsey Vonn**, Japanese figure skater Yuzuru Manyu, and Dutch para-snowboarding star Bibian Mentel-Spee. **Vinesh had a stellar 2018** in which **she won gold at the 2018 Commonwealth Games**, a silver in the 2018 Asian Championships in Bishkek and a **gold at the Asian Games in Jakarta**.

What

1. **Laureus project Carney's Community in London** are to announce the shortlist for Laureus World Sporting Comeback. Who's your Comeback King or Queen for #Laureus19?

2. **She was one of the favourites to win a medal for India at the 2016 Olympics in Rio de Janeiro, Brazil**, but a horrific knee injury forced her tournament to an end at the quarter-finals. A former member of Vinesh's entourage said the injury was virtually a 'death sentence' for her career.

> **Flashback**
> 1. The **Laureus World Sports Awards** is an annual award ceremony honouring individuals and teams from the world of sports along with sporting achievements throughout the year.
> 2. **It was established in 1999** by Laureus Sport for Good Foundation founding patrons Daimler and Richemont and supported by its global partners Mercedes-Benz and IWC Schaffhausen.
> 3. The awards support the work of Laureus Sport for Good, which supports over 100 community projects in around 40 countries.

3. Vinesh steadily worked her way back to fitness and the first true sign of her return was when she followed up her CWG gold with a victory at the Madrid Grand Prix.

4. In 2016, she had lost the Olympic quarter-final to China's San Yanan. Her 2018 Asian Games started with a repeat of the fixture and Vinesh went on to win the match 8-2.

OXFAM STUDY ON INDIAN

Indian billionaires saw their fortunes swell by Rs 2,200 crore a day last year, with the top **1 per cent of the country's richest** getting richer by **39 per cent as against just 3 per cent increase** in wealth for the bottom-half of the population, an Oxfam study said 21 January 2019. **Globally, billionaires' fortunes rose by 12 per cent** or USD **2.5 billion a day in 2018**, whereas the poorest half of the world's population saw their wealth decline by 11 per cent, the international rights group said in its annual study released before the start of the **five-day World Economic Forum (WEF) Annual Meeting** in this **Swiss ski resort town**.

What

1. Oxfam further said that **13.6 crore Indians, who make up the poorest 10 per cent of the country**, continued to remain in debt since 2004.

2. Asking the political and business leaders who have gathered in Davos for the annual jamboree of the rich and powerful of the world to take urgent steps to tackle the growing rich-poor divide, Oxfam said this **increasing inequality is undermining the fight against poverty**, damaging economies and fuelling public anger across the globe.

3. Oxfam International Executive Director Winnie Byanyima, **one of the key participants at the WEF summit**, said it is "**morally outrageous**" that a few wealthy individuals are amassing a growing share of India's wealth, while the poor are struggling to eat their next meal or pay for their child's medicines.

4. If this obscene inequality between the **top 1 percent and the rest of India continues** then it will lead to a complete collapse of the social and democratic structure of this country.

5. Noting that wealth is becoming even more concentrated, Oxfam said **26 people now own the same as the 3.8 billion people who make up the poorest half of humanity**, down from 44 people last year.

6. The world's richest man Jeff Bezos, founder of Amazon, saw his fortune increase to USD 112 billion and just 1 per cent of his fortune is equivalent to the whole health budget for Ethiopia, a country of 115 million people.

7. **India's top 10 per cent of the population holds 77.4 per cent of the total national wealth**. The contrast is even sharper for the top 1 per cent that holds 51.53 per cent of the national wealth.

8. **The bottom 60 per cent, the majority of the population, own merely 4.8 per cent of the national wealth**. Wealth of top 9 billionaires is equivalent to the wealth of the bottom 50 per cent of the population, Oxfam said while noting that high level of wealth disparity subverts democracy.

9. Between 2018 and 2022, India is estimated to produce **70 new dollar millionaires every day**, Oxfam said. It (the survey) reveals how governments are exacerbating inequality by underfunding public services, such as healthcare and education, on the one hand, while under taxing corporations and the wealthy, and failing to clamp down on tax dodging on the other, Oxfam India CEO Amitabh Behar said.

Inequality has 'female face' in India

1. Unpaid work done by women across the globe **amounts to a staggering $10 trillion a year**, which is **43 times the annual turnover of the world's biggest company Apple**, an Oxfam study said on 21 January 2019.

2. In India, the unpaid work done by women looking after their homes and children is **worth 3.1% of the country's GDP**.

3. **Women spend 312 minutes per day in urban areas** and **291 minutes per day in rural areas** on such unpaid care work, it added.

4. In comparison, **men spend only 29 minutes in urban** and **32 minutes in rural areas** on unpaid care work.

5. The report, released by the international rights group before the start of the **World Economic Forum (WEF) Annual Meeting in this Swiss ski resort town**, also said women and girls are hardest hit by rising economic inequality, including in India.

6. Oxfam said inequality has a "female face" in India, where women are less likely to have paid work when compared to men, while even among the richest there are **only nine women in the country's 119-member billionaires club**.

7. The paid work women do bring them less earnings as compared to men due to the existing wage gap and therefore households that rely primarily on female earners tend to be poorer, it said, referring to the country's gender pay gap at 34%.

8. It observed that various intersections of caste, class, religion, age and sexual orientation have further implications on women inequality as a process.

India's poor ranking in Gender Gap Index

1. The Oxfam study also referred to **India's poor 108th ranking on the WEF's Global Gender Gap Index of 2018**, saying it was **10 notches less than in 2006** and far below the global average and behind its neighbours China and Bangladesh.

2. Oxfam said India has many laws that deal with violence against women, but their implementation remains a challenge, including due to a deeply patriarchal society.
3. It said a **law to deal with sexual harassment at workplace was passed in 2013** after a struggle by women's rights organisations and group of lawyers for 17 years, but it is the recent #MeToo movement in India that has opened the doors for the organised workforce to ensure that mechanisms are in place and due process is followed.
4. Oxfam said a **large majority of women are in the informal sector that does not have any formal mechanisms for dealing with sexual harassment**. Consequently, where there is an option, women drop out of the labour force, else continue under exploitative conditions.

PRAVASI BHARATIYA DIWAS 2019

The **15th Edition of Pravasi Bharatiya Diwas got off to a grand start at Deendayal Hastakala Sankul in Varanasi** on 21 January 2019. External Affairs Minister, Smt Sushma Swaraj inaugurated the **Youth Pravasi Bharatiya Diwas** on day one of **PBD-2019**. In inaugural address, the External Affairs Minister said **India is a land of limitless opportunities** and **Pravasi Bharatiyas are and will continue to be partners in progress of our motherland**. She emphasized that shared identity and shared commonness are the key features which bind us together which will grow manifold in years to come.

What

1. **Theme** of PBD-2019 is - **Role of Indian Diaspora in building New India**
2. On the closing day January 23, 2019, President Shri Ram Nath Kovind will confer Pravasi Bharatiya Samman to select overseas Indians for their significant contributions in India and abroad.
3. After the Convention, on 24th January participants will visit Prayagraj for Kumbh Mela. They will then proceed to Delhi on 25th January and witness the Republic Day Parade at Rajpath, New Delhi.
4. The decision to celebrate **Pravasi Bharatiya Diwas (PBD)** was taken by the former Indian Prime Minister, late **Shri Atal Bihari Vajpayee**.
5. The **1st PBD was celebrated on 9th January, 2003 in New Delhi**. January 9 was chosen as the day to celebrate PBD as **it was on this day in 1915 that Mahatma Gandhi, had returned to India from South Africa**.
6. **PBD now celebrated once in every two years** provides a platform to the overseas Indian community to engage with the government and reconnect with their roots.
7. During the Convention, Pravasi Bharatiya Samman is conferred on the selected overseas Indians for their significant contributions to various fields both in India and abroad.
8. **14th PBD held during 7–9 January 2017 at Bengaluru, Karnataka** was inaugurated by Prime Minister Narendra Modi.
9. The theme for the 14th PBD was "**Redefining engagement with the Indian diaspora**".
10. In his address, Mr. Modi had said that Indian diaspora represents the best of Indian culture, ethos and values and are respected for their contributions.
11. He underlined the importance of a continuous engagement with the overseas Indian community as a key area of priority for the Government.

KOHLI SWEEPS ICC AWARDS

The **peerless Virat Kohli** on 21 January 2019 **became the first cricketer to make a clean-sweep of the ICC's annual individual awards** and was **also named captain of the**

world body's Test and ODI teams of the year, line-ups which were dominated by Indian players. **Kohli became the first player in history to win the Sir Garfield Sobers Trophy for ICC Cricketer of the Year** on his second consecutive in the ICC Test and the ODI Player of the Year awards following an extraordinary 2018. Besides, the rapidly-rising wicketkeeper **Rishabh Pant claimed the ICC's Emerging Cricketer of the Year award**.

What

1. Not only is Kohli the first player to win these three major ICC awards together but **he has also been named the captain of the ICC Test** and ODI teams of the year for a fabulous run in international cricket, the ICC said in a statement.

2. **Kohli scored 1,322 runs at an average of 55.08 in 13 Tests** with five hundreds during the calendar year while in 14 ODIs he amassed 1202 runs at an astonishing average of 133.55 with six centuries. He also scored 211 runs in 10 T20Is.

3. **Three players each from India and New Zealand** featured in the ICC's Test team of the year, while four each from India and England are part of the ODI side of the year 2018.

4. The Test team included Pant, in just his breakthrough Test year, and fast bowler Jasprit Bumrah, who was the only player apart from Kohli to be named in both the sides.

5. The ODI team has opener Rohit Sharma, spinner Kuldeep Yadav and Bumrah from India along with Kohli, while England are represented by Joe Root, Jonny Bairstow, Jos Buttler and Ben Stokes.

6. The 30-year-old Kohli, who first came into limelight when he led India to victory at the **ICC Under-19 World Cup in Malaysia in 2008**, finished the year as the top-ranked batsman in Tests and ODIs.

7. The highest scorer in both forms of the game in 2018, he was one of only two batsmen to score more than 1,000 runs in Tests and only among three to do so in ODI cricket.

8. **Kohli was the unanimous choice of the voting academy for the Sir Garfield Sobers Trophy** with South Africa fast bowler Kagiso Rabada coming in second to him for both this award and the Test Player of the Year honour.

NATIONAL VOTER'S DAY

The Constitution of India grants every citizen the right to vote and participate in the democratic functioning of the country. **The right to choose our representatives** through a free and fair manner forms a cardinal principle of Indian governance. In India, **every citizen of the age of 18 years and above is guaranteed the right to vote without any discrimination**. To conduct the elections in the country, the Election Commission of India has been entrusted with the responsibility. To mark the foundation day of ECI**, National Voters' Day (NVD) is celebrated all over the country on January 25 every year since 2011**. ECI is a constitutional body, which was established on January 25, 1950. In view of the upcoming Lok Sabha Election, '**No Voter to be Left Behind**' has been selected as the theme for the NVD.

What

1. The main purpose of the NVD celebration is **to encourage, facilitate and maximise the enrollment, especially for the new voters**.

2. NVD is utilised to spread awareness among voters for promoting informed participation in the electoral process.

3. The country is celebrating NVD today at more than six lakh locations covering around ten lakh polling stations across the country. New Voters shall be felicitated and handed over their EPIC (Elector Photo Identity Card) in the NVD function.

4. President Ram Nath Kovind will be the Chief Guest at the national function being organised by Election Commission of India at Manekshaw Centre in Delhi.
5. ECI will release '**My Vote Matters**', a Quarterly Magazine on the occasion and the first copy shall be presented to the President.
6. Chief Election Commissioners and senior officials from Bangladesh, Bhutan, Kazakhstan, Maldives, Russia and Sri Lanka will be present on the occasion.
7. The National Awards for the Best Electoral Practices will be conferred on Officers for their outstanding performance in the conduct of elections.

PADMA AWARDS 2019

Padma Awards are the **one of the highest civilian Awards of the country**, are conferred in three categories, namely, **Padma Vibhushan**, **Padma Bhushan** and **Padma Shri**. The Awards are given in various disciplines/ fields of activities, viz.- **art, social work, public affairs, science and engineering, trade and industry, medicine, literature and education, sports, civil service**, etc. 'Padma Vibhushan' is awarded for exceptional and distinguished service; 'Padma Bhushan' for distinguished service of high order and 'Padma Shri' for distinguished service in any field. The awards are announced on the **occasion of Republic Day every year**.

What

1. **These awards are conferred by the President of India** at ceremonial functions which are held at Rashtrapati Bhawan usually around March/ April every year.
2. This year the President of India has approved conferment of **112 Padma Awards** including one duo case (in a duo case, the Award is counted as one) as per list below.
3. The list **comprises 4 Padma Vibhushan**, **14 Padma Bhushan** and **94 Padma Shri Awards**.
4. 21 of the awardees are women and the list also includes 11 persons from the category of Foreigners/NRI/PIO/OCI, 3 Posthumous awardees and 1 transgender person.

PADMA VIBHUSHAN (4)

S.No	Name	Field	State
1.	Ms. Teejan Bai	Art-Vocals-Folk	Chhattisgarh
2.	Shri Ismail Omar Guelleh **(Foreigner)**	Public Affairs	Djibouti
3.	Shri Anilkumar Manibhai Naik	Trade & Industry-Infrastructure	Maharashtra
4.	Shri Balwant Moreshwar Purandare	Art-Acting-Theatre	Maharashtra

PADMA BHUSHAN- (14)

S.No	Name	Field	State
5.	Shri John Chambers **(Foreigner)**	Trade & Industry-Technology	USA
6.	Shri Sukhdev Singh Dhindsa	Public Affairs	Punjab

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7.	Shri Pravin Gordhan **(Foreigner)**	Public Affairs	South Africa
8.	Shri Mahashay Dharam Pal Gulati	Trade & Industry-Food Processing	Delhi
9.	Shri Darshan Lal Jain	Social Work	Haryana
10.	Shri Ashok Laxmanrao Kukade	Medicine-Affordable Healthcare	Maharashtra
11.	Shri Kariya Munda	Public Affairs	Jharkhand
12.	Shri Budhaditya Mukherjee	Art-Music-Sitar	West Bengal
13.	Shri Mohanlal Viswanathan Nair	Art-Acting-Film	Kerala
14.	Shri S Nambi Narayan	Science & Engineering-Space	Kerala
15.	Shri Kuldip Nayar **(Posthumous)**	Literature & Education (Journalism)	Delhi
16.	Ms. Bachendri Pal	Sports-Mountaineering	Uttarakhand
17.	Shri V K Shunglu	Civil Service	Delhi
18.	Shri Hukumdev Narayan Yadav	Public Affairs	Bihar