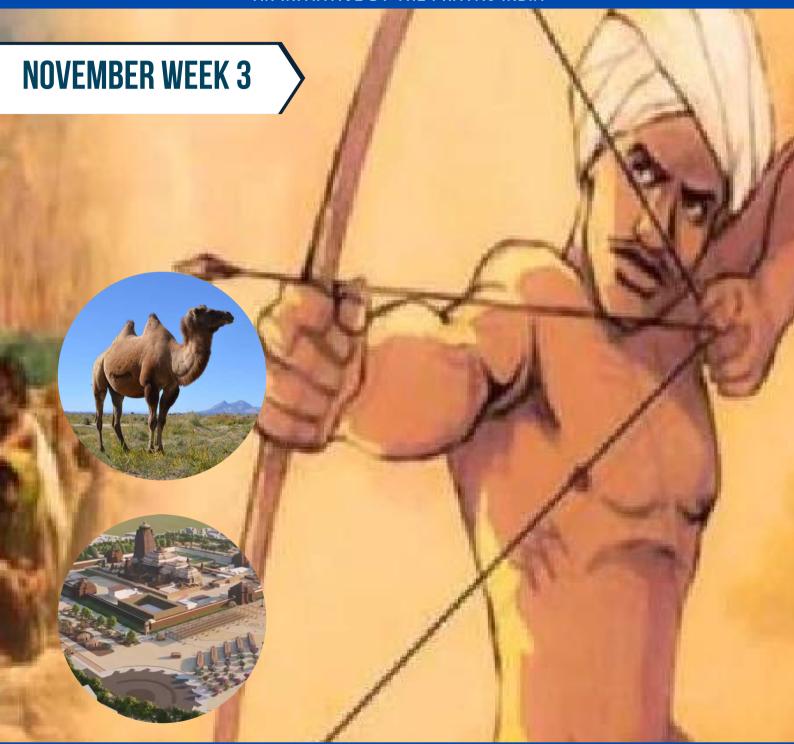
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November (Week 3)

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Prelims

NATIONAL

Kaiser-i-Hind is Arunachal's State butterfly

(Source: The Hindu)

Context: An elusive swallowtail butterfly carrying 'India' in its name and found in next-door China will become the State butterfly of Arunachal Pradesh.

Details:

- The State Cabinet headed by Chief Minister Pema Khandu approved the large, brightly coloured Kaiseri-Hind as the State butterfly.
- The Cabinet also adopted the Pakke Tiger Reserve 2047 declaration on climate change-resilient and responsive Arunachal Pradesh aimed at lowering emissions and sustainable development.
- Kaiser-i-Hind (Teinopalpus imperialis) literally means Emperor of India. This butterfly with a 90-120 mm wingspan is found in six States along the eastern Himalayas at elevations from 6,000-10,000 feet in well-wooded terrain.
- The butterfly also flutters in Nepal, Bhutan, Myanmar, Laos, Vietnam and southern China.
- The State Wildlife Board had in January 2020 accepted the proposal from Koj Rinya, the divisional forest officer of Hapoli Forest Division in the Lower Subansiri district to accept the Kaiser-i-Hind as the State butterfly. The proposal was made with a view to boosting butterfly tourism and saving the species from extinction in the State.
- Protected areas under the Hapoli Forest Division are popular with butterfly enthusiasts.
- Although the Kaiser-i-Hind is protected under Schedule II of Wildlife (Protection) Act, 1972, it is hunted for supply to butterfly collectors.
- According to Assam-based butterfly expert Monsoon Jyoti Gogoi, the species is confined to very few pockets of Arunachal Pradesh and could become extinct if not conserved.

Camel conservation law of Rajasthan

(Source: Indian Express)

Context: For a long time now, camel herders and cattle rearers in Rajasthan have been carrying out a sustained opposition and protests against The Rajasthan Camel (Prohibition of Slaughter and Regulation of Temporary Migration or Export) Act, 2015, citing loss of livelihood and business ever since the law was passed by the Rajasthan Assembly in 2015.

What is the camel conservation law of Rajasthan?

- The Rajasthan Camel (Prohibition of Slaughter and Regulation of Temporary Migration or Export) Act, 2015, aims to provide for prohibition of slaughter of camels and also to regulate temporary migration or export thereof from Rajasthan.
- According to the law, no person shall possess, sell or transport for sale or cause to be sold or transported camel meat or camel meat products in any form.



- It further adds that no person shall export and cause to be exported any camel himself or through his agent, servant or other person acting on his behalf from any place within the State to any place outside the State for the purposes of slaughter or with the knowledge that it may be or is likely to be slaughtered.
- The law also regulates temporary migration of camels, saying that a 'Competent Authority' may issue special permit in the prescribed manner for their export from Rajasthan for agricultural or dairy farming purposes or for participation in an animal fair, and before granting such permission the Competent Authority shall also ensure that such export in no way reduces the number of such camels below the level of actual requirement of the local area.
- This provision requires that for the migration of every camel outside Rajasthan for any purpose including legit sale, permission of the competent authority has to be required.
- As per the act, a competent authority means collector of a district and includes any other officer who may be authorised on this behalf by the state government by notification in the official gazette.

Autopsy can be done after sunset

(Source: The Hindu\)

Context: The Union Health Ministry revised the post-mortem protocols to allow for conducting the procedure after sunset.

Details:

- Apart from aiding the family of the deceased, the revision was also aimed at promoting organ donation and transplant as organs could be harvested in the stipulated time window after the procedure.
- The protocol stipulated that post-mortem for organ donation be taken up on priority and conducted even after sunset at the hospitals that have the infrastructure for conducting such procedure on a regular basis.
- The fitness and adequacy of infrastructure etc. shall be assessed by the hospital in charge to ensure that there was no dilution of evidentiary value.
- It was also to be ensured by the facility that video recording shall be done for all such post-mortem at night to rule out any suspicion and preserved for future reference for legal purposes, it stated.
- However, cases under categories such as homicide, suicide, rape, decomposed bodies and suspected foul play should not be subjected for post-mortem during night unless there was a law and order situation.

Akasa's 72 aircraft order from Boeing

(Source: Indian Express)

Context: Rakesh Jhunjhunwala-backed SNV Aviation, which will operate a low-cost airline under Akasa brand, has placed an order for 72 Boeing 737-8 Max family of aircraft at list prices of \$9 billion order, in what is set to pave the way for the new airline's summer 2022 launch.

What is Akasa?

- The airline is being launched by stock market investor Rakesh Jhunjhunwala, who will hold a 40 per cent stake in the company.
- Jhunjhunwala has onboarded aviation industry veterans such as former Jet Airways CEO Vinay Dube and ex-IndiGo President Aditya Ghosh to run the airline.



• While Dube is the CEO of the company, Ghosh is expected to be on the board as Jhunjhunwala's nominee. The Mumbai-based investor will pump in \$35 million.

What does the order mean for Akasa?

- Akasa has followed the low-cost carrier model of ordering aircraft in bulk, which gets the customers a significant discount on list prices from OEMs like Boeing.
- While the two companies haven't detailed when the deliveries on the planes will begin, Akasa has said that it plans to start flying across India by summer of 2022.
- Having planned capacity will also help the airline in acquiring slots at Indian airports.

What does the order mean for Boeing?

- For Boeing, which is reeling out from the 737 Max controversy, the order means regaining a part of its lost ground in India the world's third largest aviation market.
- While the American plane-maker dominated the market with Jet Airways, SpiceJet, Air India's wide-bodied planes and Air India Express several years ago, it has ceded ground to its European rival Airbus, which is set to deliver hundreds of aircraft to budget carriers IndiGo and GoAir, in addition to full-service carrier Vistara, which is building an Airbus narrow-bodied fleet.
- The Akasa order will see Boeing gain some share along with resuming Max deliveries to SpiceJet.

Centre amends rules to clear tenure extension

(Source: The Hindu)

Context: A day after promulgating two ordinances that would allow the Centre to extend the tenures of the Directors of the CBI and the Enforcement Directorate from two years to up to five years, the Personnel Ministry issued an order to amend the Fundamental Rules, 1922 adding the two posts to the list whose services can be extended by up to two years beyond the two-year fixed tenure in "public interest".

Details:

- The previous list comprised Defence Secretary, Foreign Secretary, Home Secretary, Director, Intelligence Bureau and Secretary, Research and Analysis Wing.
- Though Director, CBI, was also mentioned in the previous order, the Monday notification adds the Delhi Special Police Establishment Act, 1946 (25 of 1946) under which the investigation agency's head is appointed.
- The notification amended fifth proviso of Clause (d) of Rule 56 of the Fundamental Rules, 1922.
- It said, "Provided also that the Central Government may, if it considers necessary in public interest so to do, give extension in service to the Defence Secretary, Home Secretary, Director of Intelligence Bureau, Secretary of Research and Analysis Wing and Director of Central Bureau of Investigation appointed under the Delhi Special Police Establishment Act, 1946 (25 of 1946) and Director of Enforcement in the Directorate of Enforcement appointed under the Central Vigilance Commission Act, 2003 (45 of 2003) in the Central Government for such period or periods as it may deem proper on a case-to-case basis for reasons to be recorded in writing, subject to the condition that the total term of such Secretaries or Directors, as the case may be, who are given such extension in service under this rule, does not exceed two years or the period provided in the respective Act or rules made there under, under which their appointments are made."

Retrospective move

• The Centre had retrospectively extended the tenure of Sanjay Kumar Mishra as the Director of the ED in 2020.



- The Finance Ministry said a November 19, 2018 order through which Mr. Mishra, a 1984-batch Indian Revenue Service official, was appointed has been modified with approval from the President and it would now be read for three years. He is to retire on November 17.
- The NGO Common Cause, represented by advocate Prashant Bhushan, had challenged the retrospective extension in the Supreme Court.
- The SC on September 8 said Mr. Mishra should not be given any further extension.
- On August 12, the Appointments Committee of the Cabinet (ACC) gave a one-year extension to Home Secretary Ajay Kumar Bhalla, beyond his two-year fixed tenure that was to end on August 22.
- On May 28, one-year extension in service was granted to Intelligence Bureau Director Arvinda Kumar and R&AW Secretary Samant Kumar Goel.

Raza Academy

(Source: Indian Express)

Context: Raza Academy, which functions out of a small office in south Mumbai, finds itself under the spotlight once again — this time for organising a protest against the Tripura violence at Amravati.

When was Raza Academy founded and why?

- The Raza Academy was formed in 1978 by Muhammad Saeed Noorie along with a few others. Noorie has remained president of the organisation since 1986.
- The academy was formed with the intention of printing and publishing books primarily written by Ahmed Raza Khan, the founder of the Barelvi sect that has a considerable following in South Asia, and other Sunni Muslim writers on religion.
- As per their website, "it was also established for educational awareness among minorities, for raising voice against atrocities on the minorities and for all minority related matters." It has an office in South Mumbai's Mohammed Ali Road.
- As per claims, while working in the sewing thread business, Noorie formed the Raza Academy to promote the cause of Sunni Islam. He has not received any formal Islamic education.
- The Academy is not associated with any academic work of note, but over a period of time has come to be identified more with organising protests by Muslims across the city.

Controversies Raza Academy has been involved in

- Raza Academy has been involved in burning effigies of Salman Rushdie in Mumbai in 1999 after he was granted a visa to come to India by the government. Rushdie was facing a fatwa following his book Satanic Verses.
- Another target of Raza Academy is Bangladeshi writer Tasleema Nasreen, whose visit to Mumbai had been protested by the outfit in 2000. It also tried to disrupt a programme featuring her in the city.
- Others against whom Raza Academy has protested include the BBC, for using a picture of Prophet Mohammad in one of its videos. In 2015, the group issued a "fatwa" against music composer AR Rahman and Iranian filmmaker Majid Majidi in connection with the latter's film "Muhammad: Messenger of God".Rahman was working on the film.
- Apart from the controversies, Raza Academy with permission from the BMC had facilitated burial of Muslims who passed away during Covid. The Academy says they also helped during the Kerala floods of 2018.



Janjatiya Gaurav Diwas

(Source: PIB)

Context: The government has decided to celebrate the birth anniversary of freedom fighter Birsa Munda as 'Janjatiya Gaurav Diwas'.

Details:

- The Prime Minister also inaugurated the Bhagwan Birsa Munda Memorial Udyan cum Freedom Fighter Museum at Ranchi, Jharkhand.
- The government also instituted the 'Janjatiya Gaurav Diwas' to commemorate the achievements and contributions of the various tribal freedom fighters from India.
 - o This day will be observed on November 15, the birth anniversary of Birsa Munda.
- Ration Aapke Gram: It is a door-to-door ration delivery scheme under which ration will be provided to the tribal community at the village level at a reasonable price. The people can avoid going to the Panchayat HQ to get their rations.
- Madhya Pradesh Sickle Cell Mission: 'Madhya Pradesh Sickle Cell (Hemoglobinopathy) Mission' aims at spreading awareness among people about genetic disorders such as Sickle Cell Anaemia. The initiative aims at screening and managing patients suffering from sickle cell anaemia, thalassemia and other hemoglobinopathies. Genetic counselling cards were given to beneficiaries under the scheme.
- PM also laid the foundation of 50 Eklavya Model Residential Schools across the country.

Exercise SITMEX-21

(Source: PIB)

Context: Indian Navy participates in India, Singapore and Thailand Trilateral Maritime Exercise 'SITMEX'.

Details:

- This is the third edition of Ex SITMEX.
- It is being held in the Andaman Sea.
- From the Indian Navy, INS Karmuk, an indigenously built Missile Corvette is participating.
- It is being hosted by Royal Thai Navy (RTN).
- SITMEX is being conducted annually since 2019 with an aim to enhance mutual inter-operability and imbibing best practices between the Indian Navy (IN), Republic of Singapore Navy (RSN) and RTN.
- The maiden edition of SITMEX was hosted by India off Port Blair in September 2019.

People's Liberation Army

(Source: <u>Indian Express</u>)

Context: The People's Liberation Army and the Manipur Naga People's Front have jointly claimed responsibility for the ambush of an Assam Rifles convoy morning in Churachandpur district of Manipur, killing seven, including a Commanding Officer, his wife and their five-year-old son. The ambush is one of the biggest in the state since the attack on the Dogra Rifles in 2015.



What is the People's Liberation Army (PLA)?

- The group was founded on September 25, 1978, under the leadership of N. Bisheshwar, after having broken away from its parent body, the United National Liberation Front. In 1979, the PLA's political wing Revolutionary People's Front (RPF) was set up.
- Like the UNLF, and many other splinter groups that would follow, the PLA was fighting for the secession of Manipur from India.
- While the PLA called for Kuki and Naga insurgents to join their ranks, it remains till this day dominated by the Imphal valley-based Meitei Hindu insurgents.
- Also, like other Meitei underground groups, in its initial years, PLA cadres were trained by the NSCN and hold Marxist ideology.
- Its political wing, the RPF campaigned against the use of drugs, and banned alcohol in the state, often using violent means to impose these bans.
- Considered one of the strongest groups in Manipur, the PLA has been working out of Myanmar where they continue to have camps, like the other Meitei groups, and remain active with no ceasefire agreement with the Indian government, and have so far not expressed any intent of peace talks with India.

What is the status of valley groups in Manipur?

- Unlike the tribal groups such as the Naga NSCN-IM and NNPGs, or the 20 odd Kuki/Zomi groups which are in peace talks with the Indian government the Meitei valley-groups have till date not come to the table to discuss a solution with the Indian Government.
- There are six main valley groups in Manipur the UNLF, PLA, KCP, KYKL, PREPAK, MPLF apart from numerous splinter groups from each.
- All the groups operate out of Myanmar and raise funds for operations and arms largely through extortion.
- They use guerrilla tactics in their operations and the attacks on Indian security forces in the north east are largely carried out by these groups.
- Their activity over the years has dwindled, however, with recruitment having stalled on one hand, and Myanmar's increasing cooperation with India in recent years, placing pressure on the groups.

'School enrolment fell during pandemic'

(Source: The Hindu)

Context: The percentage of rural children who were not enrolled in school doubled during the pandemic, with government schools seeing an increase in enrolment at the expense of private schools, according to the Annual Status of Education Report (ASER), 2021. Over a third of children enrolled in Classes 1 and 2 have never attended school in person.

- However, enrolment does not necessarily mean that learning took place.
- In a survey of over 76,000 households with children aged six to 14, ASER found that while 92% of children had textbooks for their grade, only a third had access to any other learning resources or support.
- With smartphone availability and access limited, online learning was restricted to a quarter of students, though there were major differences in the experience of students from different States.
- For instance, 91% of students from Kerala and almost 80% from Himachal Pradesh had online education, but only 10% from Bihar and 13% from West Bengal.
- Due to the pandemic, ASER's 16th annual report was based on a phone survey assessing enrolment in schools and tuition classes, and access to devices and learning resources, rather than the organisation's



usual face-to-face survey which assesses learning outcomes and children's competencies in reading and arithmetic skills.

• In 2018, only 2.5% of children were not enrolled in school.

Major shift

- In both the 2020 and 2021 surveys, that figure had jumped to 4.6%. Government school enrolment spiked significantly from 64.3% in 2018 to 70.3% in 2021, while private school enrolment dropped from 32.5% to 24.4% over the same period.
- "The shift to government school enrolment could be a result of financial distress, the closure of affordable private schools and the movement of migrants to rural areas," said ASER Centre director Wilima Wadhwa.
- "Although it is not clear if this is a permanent phenomenon or will be reversed post the pandemic, it is important to ensure that government schools and teachers are equipped and given the necessary resources for this surge in enrolment," she add
- This is particularly true for Class 1 and 2 students, as 37% of those enrolled in government schools have never even stepped into a physical classroom before.
- "The habit of going to school, sitting in a classroom, and teaching in a classroom has been disrupted significantly. We need to ask if this disruption can be repaired simply by reopening schools," said Madhav Chavan, president of Pratham, the educational NGO which is the parent organisation of ASER, emphasising that a "business as usual" approach could not be imposed.
- Smartphone access was a challenge in the delivery of online education. Although availability almost doubled to 68%, only a quarter of children even in homes with smartphones were able to access it whenever needed.
- In smartphone owning households, 26% of children had no access to the device at all, while 47% had only occasional access.
- "Going forward, there is a need for device libraries, so all children can have access to needed devices," said Rukmini Banerji, Pratham CEO.
- About a quarter of children had access to some form of online education, whether content shared through WhatsApp or live classes, while over 20% listened to lessons broadcast on television and radio.
- About 65% of students did some type of traditional learning activity during the week of the survey, with engagement ranging from 44% in Jharkhand to almost 90% in Kerala.
- "As students return to school, it is important to start by assessing where they are, rather than teaching from where the curriculum thinks they should be. Teachers must be given the tools and agency to carry out such an assessment, so that no child is left stranded," said Dr. Wadhwa.

The Punjab Land Preservation Act of 1900

(Source: <u>Indian Express</u>)

Context: The Punjab Land Preservation Act was enacted by the then government of Punjab in 1900. It provided for the conservation of subsoil water and/or prevention of erosion in areas found to be subject to erosion or likely to become liable to erosion.

Details:

 According to the government's proposal and the Punjab Land Preservation (Haryana Amendment) Bill, 2019, several changes have been proposed but the opposition has objection mainly on the provisions of Section 3 of the PLPA.



- Section 3 explains government's powers to bring any area 'subject to erosion or likely to become liable to erosion' under the ambit of the PLPA through a notification.
- After Section 3 of the principal Act, the government has inserted Section 3A into the Bill to exclude certain areas from the ambit of the Act.
- The **opposition parties in Haryana** raised major objections over insertion of 3A.
- "Under its provisions, the PLPA won't apply to 'the lands included in the final development plans, any other town improvement plans or schemes' published under the provisions of many laws like Haryana Municipal Corporation Act, 1994, the Gurugram Metropolitan Development Authority Act, 2017, the Faridabad Metropolitan Development Authority Act, 2018, the Faridabad Complex (regulation and development) Act, 1971 and the Haryana Development and Regulation or Urban Areas Act, 1975," Leader of Opposition Bhupinder Singh Hooda said.
- Environmentalists feel that the latest move by the government has exposed thousands of acres land falling on the hills and foothills of Aravallis, which cover over 26,000 acres in Gurgaon and Faridabad districts, to mining and real estate development.
- They feel that under original PLPA, the tilling or digging of the land was not allowed but the amendments will permit constructions activities.
- Environmental activist Chetan Agarwal says that the entire area of Aravallis in Gurgaon and Faridabad falls under the 'final development plans', which has been now inserted into the Bill.
- "Because of provisions of the PLPA, the constructions were not allowed on the hills and foothills of the Aravallis. But now there won't be any such protection. In fact, this move will benefit those people who have bought land at the rate of Rs 2 lakh per acre near Aravallis but now the price of this land may jump to Rs 10 crore per acre. Major problem is not the existing constructions but the buildings which may come up now," says Agarwal.
- Congress MLA and former minister Karan Singh Dalal had earlier pointed out "grey areas in the newly inserted Section 3C which can be misused".
- This section has excluded the "land which has been under bona-fide agriculture use" from the ambit of the Act.
- The government has clarified that the "land recorded in the relevant revenue records as being used for the time being for agriculture uses shall be deemed to be land under bona-fide agriculture use for the purpose of this clause".

The process for repealing a law

(Source: <u>Indian Express</u>)

Context: Prime Minister Narendra Modi annou<mark>nce</mark>d that the three contentious farm laws passed last year would be repealed. He also said that the process of repealing the laws — which are currently stayed by the Supreme Court — will take place in the upcoming Winter Session of Parliament.

What does it mean for a law to be repealed?

- Repealing a law is one of the ways to nullify a law. A law is reversed when Parliament thinks there is no longer a need for the law to exist.
- Legislation can also have a "sunset" clause, a particular date after which they cease to exist.
- For example, the anti-terror legislation Terrorist and Disruptive Activities (Prevention) Act 1987, commonly known as TADA, had a sunset clause, and was allowed to lapse in 1995.
- For laws that do not have a sunset clause, Parliament has to pass another legislation to repeal the law.



How can the government repeal a law?

- Article 245 of the Constitution gives Parliament the power to make laws for the whole or any part of India, and state legislatures the power to make laws for the state. Parliament draws its power to repeal a law from the same provision.
- A law can be repealed either in its entirety, in part, or even just to the extent that it is in contravention of other laws.

What is the process for repealing a law?

- Laws can be repealed in two ways either through an ordinance, or through legislation.
- In case an ordinance is used, it would need to be replaced by a law passed by Parliament within six months. If the ordinance lapses because it is not approved by Parliament, the repealed law can be revived.
- The government can also bring legislation to repeal the farm laws. It will have to be passed by both Houses of Parliament, and receive the President's assent before it comes into effect. All three farm laws can be repealed through a single legislation. Usually, Bills titled Repealing and Amendment are introduced for this purpose.
- The Narendra Modi government has passed six Repealing and Amendment Acts since it came to power in 2014, in order to repeal over 1,428 statutes that are obsolete.

Pochampally village

(Source: PIB)

Context: Pochampally village, often known as the Silk city of India, in Telangana has been selected as one of the best tourism villages by UNWTO.

Details:

- Pochampally is famous for its unique weaving styles and patterns and emphasizes the vision of the Prime Minister's 'vocal for local' campaign
- Pochampally Ikat is a unique style saree that received GI status in 2004.
- Ikat is a Malaysian, Indonesian word which means "Tie and Die" and which involves patterns formed by yarn and woven into fabric.

SC verdict on real estate Act benefits homebuyers

Context: Last week, the Supreme Court affirmed that the provisions of the Real Estate (Regulation and Development) Act, 2016 (RERA) are applicable to projects that were ongoing and for whom completion certificates were not obtained at the time of the enactment of the law, in effect interpreting that the law is retroactive.

- The court also held that the amount invested by the allottees, along with interest as quantified by the regulatory authority or the adjudicating officer, can be recovered as arrears of land revenue from the builders.
- Aimed at protecting homebuyers, the ruling brings a major relief for the buyers, speeds up the resolution process, and makes it difficult for state governments to dilute the intent of the law.
- The judgment came on a batch of civil appeals filed against the dismissal of writ petitions (by promoters/real estate developers) by the Allahabad High Court.



Which projects are covered when the law is applied retrospectively?

- Under Chapter II of the Act, registration of real estate projects was mandatory. It mandated that for projects that were ongoing on the date of commencement of the Act, specifically projects for which the completion certificate had not been issued, the promoters shall be under obligation to make an application to the authority for registration of the project.
- "From the scheme of the Act 2016, its application is retroactive in character and it can safely be observed that the projects already completed or to which the completion certificate has been granted are not under its fold and therefore, vested or accrued rights, if any, in no manner are affected. At the same time, it will apply after getting the ongoing projects and future projects registered under Section 3 to prospectively follow the mandate of the Act 2016," the Supreme Court Bench of Justices Uday Umesh Lalit, Ajay Rastogi and Aniruddha Bose ruled.
- Projects that received their completion certificate prior to enactment of RERA, however, are not covered by the law.

What must builders do for filing an appeal?

- The Supreme Court affirmed that it is mandatory for real estate developers to deposit at least 30% of the penalty ordered by the regulator, or the full amount as the case may be, before they challenge any RERA order under Section 43(5). This is expected to ensure that only genuine appeals are filed and homebuyers' interests are protected.
- "It may straightaway be noticed that Section 43(5) of the Act envisages the filing of an appeal before the appellate tribunal against the order of an authority or the adjudicating officer by any person aggrieved and where the promoter intends to appeal against an order of authority or adjudicating officer against imposition of penalty, the promoter has to deposit at least 30 per cent of the penalty amount or such higher amount as may be directed by the appellate tribunal. Where the appeal is against any other order which involves the return of the amount to the allottee, the promoter is under obligation to deposit with the appellate tribunal the total amount to be paid to the allottee which includes interest and compensation imposed on him, if any, or with both, as the case may be, before the appeal is to be instituted," the court observed.
- The counsel for the appellants had argued that the condition of pre-deposit is "onerous on the builders alone" and "discriminatory". The Bench noted that "in our considered view... the obligation cast upon the promoter of predeposit under Section 43(5) of the Act, in no circumstance can be said to be onerous as prayed for or in violation of Articles 14 or 19(1)(g) of the Constitution of India."

What did the court rule on homebuyers recovering their investment?

- This comes under Section 40(1) of the Act. The builders had contended that under Section 40(1), homebuyers are only entitled to recover interest or penalty as arrears of land.
- The court, however, ruled that "if Section 40(1) is strictly construed and it is understood to mean that only penalty and interest on the principal amount are recoverable as arrears of land revenue, it would defeat the basic purpose of the Act.
- Taking into consideration the scheme of the Act, the court observed, what is to be returned to the allottee is his own life savings. The amount with interest as computed/quantified by the authority becomes recoverable and such arrear becomes enforceable in law, it said.

Why did RERA come in?

- Regulation of the real estate sector was under discussion since 2013, and the RERA Act eventually came into being in 2016. Data show that more than 77% of the total assets of an average Indian household are held in real estate, and it's the single largest investment of an individual in his lifetime.
- Prior to the law, the real estate and housing sector was largely unregulated, with the consequence that consumers were unable to hold builders and developers accountable. The Consumer Protection Act, 1986 was inadequate to address the needs of homebuyers.



- RERA was introduced with the objective of ensuring greater accountability towards consumers, to reduce frauds and delays, and to set up a fast track dispute resolution mechanism.
- So far, 34 states/Union Territories have notified rules under RERA, while its implementation in Nagaland is under process. West Bengal has enacted its own legislation West Bengal Housing Industry Regulation Act, 2017 (HIRA) instead of notifying rules under RERA. Thirty States/UTs have set up Real Estate Regulatory Authorities, and 26 have set up Real Estate Appellate Tribunals, as per the latest data available with the Ministry of Housing and Urban Affairs.
- As of July 23, 67,669 real estate projects and 52,284 real estate agents have been registered under RERA, and 70,601 complaints have been disposed by Real Estate Regulatory Authorities.

Prasthan Exercise

(Source: PIB)

Context: The Western Naval Command conducted an offshore naval exercise which is codenamed Prasthan in the offshore development area (ODA) of Mumbai.

About the Exercise:

- This exercise is conducted every six months in order to bring together all the maritime stakeholders aiming at offshore security. Indian Navy, Air Force, Coast Guard, ONGC, the Port Trust, Marine police and Department of state Fisheries participated in the exercise.
- Refinement of SOP and response actions in the ODA contingencies are major areas of focus.
- Terrorist intrusion, bomb explosion, firing, oil spill, casualty evacuation are the contingencies that were exercised.
- This paints a realistic scenario in front of the stakeholders to increase responsiveness in the region with a joint effort.

Tight oil/Shale oil

(Source: Indian Express)

Context: Cairn Oil & Gas has announced that it is partnering US-based Halliburton to start shale exploration in the Lower Barmer Hill formation, Western Rajasthan. The company is also looking to increase the recoverable reserves at its offshore assets by 10 times via enhanced use of technology, in partnership with Halliburton.

What is shale oil? How does it differ from conventional crude oil?

- The key difference between shale oil and conventional crude is that the former, also called 'tight oil', is found in smaller batches, and deeper than conventional crude deposits.
- Its extraction requires creation of fractures in oil and gas rich shale to release hydrocarbons through a process called hydraulic fracking.
- Russia and the US are among the largest shale oil producers in the world, with a surge in shale oil production in the US having played a key role in turning the country from an importer of crude to a net exporter in 2019.
- A number of US shale exploration firms, including Halliburton, have faced litigation from citizens living in areas adjacent to shale production sites who have claimed that hydraulic fracking has contributed to groundwater contamination.

What are the prospects of shale oil exploration in India?



- Currently, there is no large-scale commercial production of shale oil and gas in India.
- State-owned ONGC had, in 2013, started exploration and, by the end of FY21, assessed shale oil and gas potential in 25 nomination blocks, but has reduced investments over the past few years after only getting limited success in shale exploration efforts.
- While ONGC's assessment found prospects of shale oil at the Cambay basin in Gujarat and the Krishna Godavari basin in Andhra Pradesh, the company concluded that "the quantity of oil flow observed in these basins" did not indicate "commerciality" and that the general characteristics of Indian shales are quite different from North American ones.
- Debasish Mishra, partner at Deloitte India, said shale oil and gas exploration faces several challenges
 other than environmental concerns around massive water requirements for fracking and potential for
 ground water contamination.

The Puri heritage corridor

(Source: Indian Express)

What is the Puri heritage corridor project?

- Conceived in 2016, the Puri Heritage Corridor Project was unveiled in December 2019 to transform the holy town of Puri into an international place of heritage. The project includes redeveloping major portions of the holy town and in the vicinity of the temple for visitors and tourists.
- A resolution for the project was passed in the state assembly unanimously by all the parties in February 2020 to begin the first phase of work estimated at a cost of Rs 800 crore.
- Following this, the Shree Jagannath Temple Administration (SJTA) approved the architectural design plan of the project at an estimated cost of Rs 3,200 crore.
- A total of 22 different projects will be executed in a phased manner. After the initial funds of Rs 800 crore from the state government's Augmentation of Basic

Augmentation of Basic Amenities and



Development of Heritage and Architecture at Puri (ABADHA) scheme, another Rs 265 crore will be provided in the first phase.

What will the project include?

• The project will include Shree Jagannath Temple Administration (SJTA) building redevelopment, a 600-capacity Srimandir reception centre, Jagannath cultural centre including Raghunandan library, integrated command, and control centre, Badadanda heritage streetscape, Srimandir amenities improvement, Sri Setu, Jagannath Ballav pilgrim centre, multilevel car parking, municipal market development,



Swargadwar development, Pramod Udyan, Gurukulam, Mahodadhi market, beachfront development, Puri lake, Musa river revival plan, Atharnala and housing for sevayats.

Renewable wood-based products can help combat climate change: FAO

(Source: Down to Earth)

Context: Renewable wood-based products can help combat climate change and achieve Sustainable Development Goals, according to a new report by the Food and Agriculture Organization (FAO) of the United Nations.

- Engineered wood products and wood-based textile fibres are two emerging forest product categories that can provide renewable and sustainable solutions to the global crisis.
- The production and consumption of engineered wood products are rising, mainly due to increased application in wood-frame multi-storey construction. Lyocell fibres are modern wood-based textile fibres that have properties like viscose and polyester but are more environmentally friendly in production.
- Bioeconomy has emerged as a concept for tackling challenges such as the over consumption of an
 overreliance on non-renewable natural resources. Forests and the forest sector are important components
 of a bioeconomy.
- The report Forest Products in the global bioeconomy: Enabling substitution by wood-based products and contributing to the Sustainable Development Goals brings together the most recent knowledge on the role of forest products in the global bioeconomy.
- It examined forestry's role in providing green solutions that can drive the global shift to a Net Zero future. This can be achieved by promoting wood as a bio-based material that can substitute fossil sources to produce energy, food, feed, fibre and other manufactured goods, according to the organisation.
- In a statement at the World Bioeconomy Forum in Belem (Brazil), FAO's Advisory Committee on Sustainable Forest-based Industries said: Forest-based industries make an essential contribution to Net Zero emission targets, to which many businesses have committed in line with the Paris Agreement on climate change.
- China, New Zealand, Turkey, the United States of America and the European Union have a dedicated bioeconomy strategy or action plan, FAO said. The highest-level bioeconomy strategy is the National Bioeconomy Blueprint.
- The federal bioeconomy strategic objectives included a strengthening of research and development, fast-forwarding innovations from laboratory to market roll-out, reducing regulatory barriers, development of a bioeconomy workforce and the fostering of partnerships.
- But other countries like Ethiopia, Ghana, Australia and the Russian Federation do not have a dedicated bioeconomy strategy, the report showed.
- The focus of these strategies and action plans varies significantly. Many of them relate to innovation and biotechnology to develop new value-added products or improve the productivity of biological resources and bioenergy.
- Developing awareness as well as addressing knowledge and implementation gaps in the global forest product value chain is crucial in ensuring the sustainability of a circular forest-based bioeconomy, the authors noted.
- The report included specific recommendations for governments, industry and international cooperation bodies on how to increase their contribution to sustainable development.

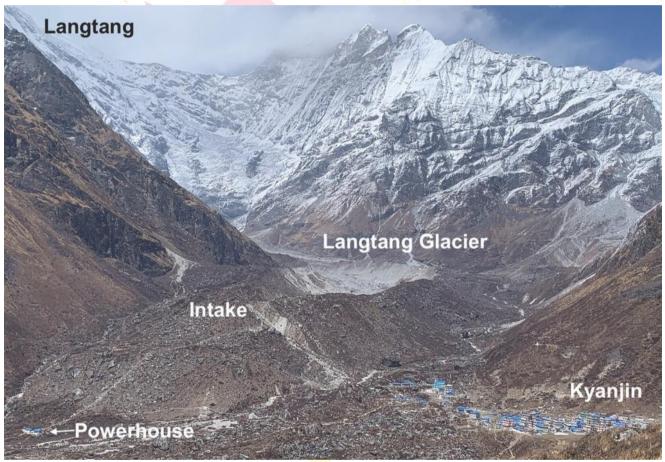


INTERNATIONAL

Nepal's first hydropower from a glacial lake

(Source: Down to Earth)

Context: From the edge of the terminal moraine of the Langtang Lirung Glacier, there is a 360 degree view of icy peaks, and below is the monastery town of Kyanjin blanketed in overnight snow. Towering above is Langtang Lirung with snow being blown off its 7,227m summit, with the jagged peaks of Kimshun standing like bodyguards with Tserko Ri, Yala Peak and Gang Chhenpo. And to the south is the rampart of the Naya Kanga ridge.



- The glacial lake is located at 4,100m from which water is channeled to the powerhouse.
- As climate change thaws the mountains, right across the eastern Himalaya in Nepal, Bhutan and southern Tibet, hundreds of new lakes have formed at the snouts of glaciers. Some have found outlets and emptied themselves, while others, like this one, swelled up dangerously.
- In the past 40 years, there have been 26 glacial lake outburst floods on Nepal's rivers, and with newer and bigger lakes forming, they pose a serious risk to new roads, settlements and hydropower plants downstream.
- However, glacial lakes do not just need to be a threat, as has been shown by a unique project on the Langtang Lirung Glacier. This glacial lake at 4,100m is being drained to lower its level, and the water is used to generate electricity.



- The Langtang Microhydro Electricity Project was built three years after the 2015 earthquake-avalanche that devastated the valley, with help from the Hong Kong-based Kadoorie Charitable Foundation.
- The \$534,000 scheme has a weir and spillway at the moraine, and the water is taken through a fibre glass-insulated penstock pipe to a powerhouse that generates 100kW of electricity, providing 24 hours of electricity to 120 households and tourist lodges in Kyanjin and Langtang.
- The project is a first-of-its-kind in Nepal to power a village, and holds promise for other remote Himalayan valleys where the risk posed by expanding glacial lakes can be mitigated, while at the same time providing electricity to tourism-dependent families.
- The only downside would be that most glacial lakes are at very high elevations where there are few settlements, and also the greater cost of transporting equipment by helicopter.
- But if the risk-reduction from glacial lake outburst floods is factored in, these multi-purpose projects would be cost-effective.
- Glacial lakes have been used to generate power in the Peruvian Andes, and in the Swiss Alps existing reservoirs filled with glacial melt have been generating 4% more electricity because of accelerated melting.
- The Swiss are even mapping future hydropower plants on glaciers for a time when all the ice will be gone. In Bhutan, a pilot scheme on a glacial lake at 4,200m is trying to lower the water level using siphons, and plans to also see if it is feasible to generate electricity.
- Experts say that with a little more investment, the moraine dams on glacial lakes can be strengthened for a fraction of a cost of building a new artificial dam for electricity generation. For this, the Langtang Microhydro Project presents a working model for other glacial lakes in Nepal where there are plans to lower the water level.

What is Kamo'oalewa?

(Source: <u>Indian Express</u>)

Context: In 2006, the PanSTARRS telescope in Hawaii spotted a quasi-satellite — a near-Earth object that orbits the Sun and yet remains close to the Earth. Scientists named it Kamo'oalewa, a word that is part of a Hawaiian chant, and alludes to an offspring that travels on its own.

- The asteroid is roughly the size of a Ferris wheel between 150 and 190 feet in diameter and gets as close as about 9 million miles from Earth.
- Because of its small size (about 50 metres wide), this quasi-satellite has been difficult for scientists to study, and little was known about it so far. Now, a study in the journal Communications Earth and Environment offers insights into where this satellite could have come from.
- One possibility is that Kamo'oalewa was a part of the Earth's Moon, the study suggests. It could have broken away from the Moon due to a possible impact, and gone on to orbit the Sun rather than the Earthlike its parent does.
- When scientists compared its spectrum with a lunar sample that was brought back to Earth during the Apollo 14 mission, they found striking similarities between the two. A mission to collect Kamo'oalewa's samples has been scheduled for a launch in 2025.
- Another possibility is that Kamo'oalewa was captured in its Earth-like orbit from the general population of Near Earth Objects.
- A third possibility could be that it originated from an as-yet-undiscovered quasi-stable population of Earth's Trojan asteroids (Trojans are a group of asteroids that share an orbit with a larger planet.

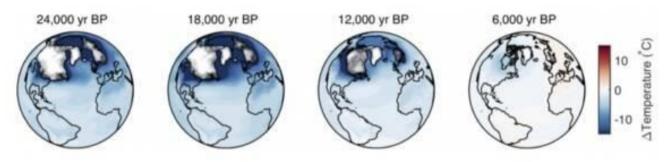
How the climate has warmed over the last 24,000 years

(Source: <u>Indian Express</u>)

Context: Scientists have reconstructed Earth's climate since the last ice age, about 24,000 years ago. The study, published in Nature, suggests that current temperatures are unprecedented in 24,000 years.

Details:

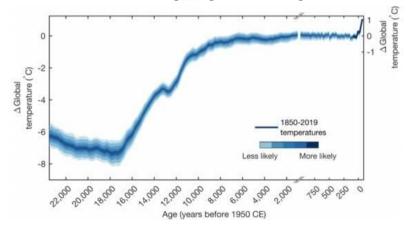
- It has three main findings, according to the University of Arizona:
 - o It verifies that the main drivers of climate change since the last ice age are rising greenhouse gas concentrations and the retreat of the ice sheets.
 - o It suggests a general warming trend over the last 10,000 years, settling a decade-long debate in the palaeoclimatology community about whether this period trended warmer or cooler.
 - o The magnitude and rate of warming over the last 150 years far surpasses the magnitude and rate of changes over the last 24,000 years.



These maps show global average surface temperature at different periods in Earth's history going back 24,000 years. The darker the shade of blue, the colder the temperature compared to today.

Matthew Osman

- o The team created maps of global temperature changes for every 200-year interval going back 24,000 years.
- They combined two independent datasets temperature data from marine sediments and computer simulations of climate to create a more complete picture of the past.





Mains

GS II

Covid's impact on learning

(Source: <u>Indian Express</u>)

Context: As schools begin to limp back after the long disruption of the Covid-19 pandemic, India's flagship national education survey has captured an unprecedented jump in government school students, and a 10-year low in private school enrolments. It has reported a growing dependency on private tuition classes—and a stark digital divide, which carries the risk of severely affecting the learning abilities of primary grade students.

Details:

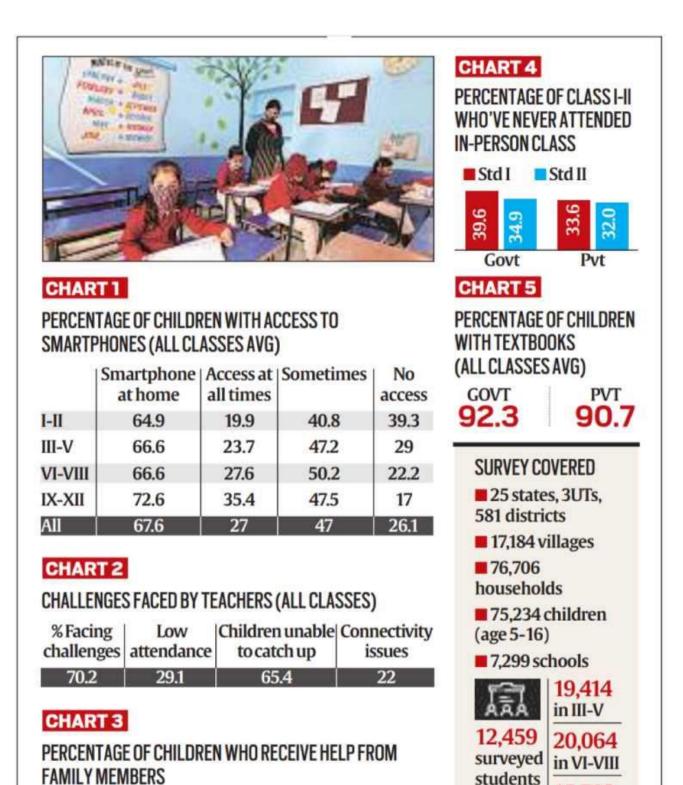
- The Annual Status of Education Report (ASER) survey, which is facilitated by Pratham Education Foundation, is the oldest survey of its kind in the country, and well regarded for the range of insights it provides on levels of foundational learning at the elementary level.
- In the context of the pandemic, the ASER Centre switched its focus to access to learning opportunities in 2020, and in its latest report released on Wednesday.
- The 16th edition of the report is based on a phone survey, conducted in September and October, of 75,234 children ages 5-16 across 581 rural districts in 25 states and three Union Territories.
- The surveyors also contacted teachers or head teachers from 7,299 government schools offering primary grades.

Headline numbers

- The report shows a "clear shift" from private to government schools from 64.3 per cent in 2018 to 65.8 per cent in 2020, to 70.3 per cent in 2021; and a fall in private school enrolment from 28.8 per cent in 2020 to 24.4 per cent in 2021.
- According to ASER Centre Director Wilima Wadhwa and Pratham CEO Rukmini Banerji, government school enrolment had been declining since 2006 till it stabilised around 65% in 2018. Seen in this background, an increase of 5 percentage points over the last year is very significant.

Tuition-dependent

- Students, especially those from poor families, are dependent more than ever on private tuition, the survey found.
- While 39.2 per cent of children overall are now taking tuitions, between 2018 and 2021, the proportion of children with parents in the 'low' education category who are taking tuitions increased by 12.6 percentage points, as opposed to a 7.2-percentage-point increase among children with parents in the 'high' education category, says the report.
- The report classifies families with parents who have studied up to Class 5 or lower in the 'low' education category; parents who have cleared at least Class 9 are in the 'high' education category.



Digital divide

Class I-II

74.3

From having no experience of pre-primary class to the lack of access to digital devices, the pandemic has left the youngest entrants in India's formal education system particularly vulnerable, and not addressing their specific needs can have grave consequences, says the survey.

Class IX-XII

56.7

Class III-V

71

Class VI-VIII

64.9

15,793

in IX-XII

in Classes

I-II



- Suman Bhattacharjea, director of ASER research centre, has observed in the report that about 1 in 3 children in Classes I and II have never attended an in-person class. Among government school students, the percentage in 36.8; in private schools, it is 33.6 per cent.
- These students who entered the school system after the pandemic will require time to settle down, get ready for the formal education system... This is essential as these students do not even have the experience of pre-primary schools, or anganwadis.
- Of concern is the survey finding that the youngest learners also have the "least access to technology". Almost a third of all children in Classes I and II did not have a smartphone available at home.
- While the percentage of enrolled children having at least one smartphone at home has risen from 36.5 to 67.6 between 2018 and 2021, only 19.9 per cent of children in Classes I-II have access to the devices whenever they require. The access to smartphones increases with age, with 35.4 per cent students in Classes IX and above having constant access.

Falling behind

- 65.4 per cent teachers flagged the problem of children being "unable to catch up" as one of their biggest challenges which is also a warning that their learning outcomes are set to be affected unless addressed with urgency.
- During the recent National Achievement Survey (NAS) of the central government, teachers and field investigators across the country reported that primary grade kids struggled to make sense of questions to test basic comprehension and numerical skills.
- While the ASER survey does not shed light on learning outcomes, a sample assessment done in Karnataka in March 2021 that covered 20,000 children ages 5-15 found "steep drops" in foundational skills, especially in lower primary grades which underlined the need for special attention to children of primary classes as they return to, or enter schools for the first time.

Silver lining

- The report captured a decline in the proportion of children not currently enrolled in the 15-16 age group—the one in which the risk of dropping out is the highest.
- "In 2010, the proportion of 15-16-year-olds who were out of school was 16.1%. Driven by the government's push to universalise secondary education, this number has been steadily declining and stood at 12.1% in 2018. The decline continued in 2020 to 9.9% and to 6.6% in 2021," the report says.
- The survey also found that 91.9 per cent of enrolled children have textbooks for their current grade. But only about a third (33.5 per cent) of children in grades I-II of yet-to-reopen schools reported having received learning materials print or virtual worksheets, online or recorded classes, or learning-related videos from schools.
- "Even fewer had had some form of contact with teachers to discuss children's learning (28.5%). The proportion of families who had some contact with teachers was heavily skewed towards better off families, as proxied by parental education levels," states the report.

Missing an inclusionary vision for the urban poor

(Source: The Hindu)

Context: In Chennai, where involuntary resettlement of slum dwellers has been practised for at least two centuries, the last two decades alone have seen over 55,000 families forcibly moved to large state-built ghettos outside the city. In the absence of a policy, these relocations have been governed by ad hoc government orders or by guidelines of specific projects or funding agencies.

A narrow outlook



- In October 2021, the Tamil Nadu government released its first-ever draft "Resettlement and Rehabilitation Policy" for public comment.
- While long awaited, the policy is also premature. It is not anchored in a comprehensive housing and habitat policy that defines a framework for affordable housing, slum clearance, and land use in which the relocation of slum dwellers to remote peripheries is specified as a last-ditch option.
- The draft policy aims to "ensure that slum dwellers are treated fairly and humanely when they are resettled from objectionable poromboke lands".
- But resettlement needs to be located within an explicitly stated vision of integration and inclusion of vulnerable communities into the mainstream. Instead, this policy restricts its scope to managing procedures for eviction and resettlement.
- Mass ghettos on the peripheries of cities have emerged all over the country as the default mode for rehousing the evicted urban poor.
- The consequences have been well documented. In places such as Bawana (New Delhi), Vatwa (Ahmedabad), and Mahul (Mumbai), scholars, journalists, and fact-finding committees have highlighted the enduring pathologies produced by these poorly serviced colonies.
- While broken livelihoods are widely recognised as the most serious impact of resettlement, a host of other problems such as alcohol and substance abuse, criminalisation of youth, and safety threats to women and girls are also endemic to these sites. Many residents sell or rent out their allotments and return to informal settlements in the city to safeguard their painstakingly crafted pathways to a better life.
- A resettlement policy, dealing as it does with the city's most vulnerable populations, must be visionary, proactive and far-sighted. It should ensure minimal disruption of the ecologies of survival and mobility that these households have constructed over time.
- If it needs to uproot them, it must ensure that the state does everything it can to support their rapid reintegration into the urban mainstream and improve their lives. Delhi's slum rehabilitation policy recognises this by defining in situ rehabilitation as its principle strategy, with relocation envisaged only "in rare cases".

Tamil Nadu led the way

- Chennai has a history of implementing innovative and inclusionary models of slum clearance. Tamil Nadu historically led the country in providing large-scale low-income housing through land acquisition or by regularising and upgrading informal settlements.
- The sites and services projects of the 1980s, which produced around 57,000 plots in Chennai, proved scaleable, cost-effective, and successful in facilitating socio-economic mobility for their residents over the long term.
- The projects built mixed-class and mixed-use neighbourhoods by providing plots of varying sizes for different income groups on State-acquired land, and incorporating industrial and commercial spaces within the sites.
- By allowing families to design, build, and incrementally expand their homes to accommodate growing families or rental units, these schemes vastly expanded the supply of affordable housing over time with minimal outlay by the State.
- Despite their peripheral location, they were sited near existing developments where trunk infrastructure such as roads, water supply and public transport was already available. Thirty years later, they have emerged as thriving and dynamic neighbourhoods, well integrated into the urban fabric.

The deficiencies

- Instead of leveraging these achievements to allow low-income families to consolidate their foothold in the city, the Tamil Nadu resettlement policy implicitly clings to the tired and discredited model of mass peripheral resettlement.
- The policy defines its scope as resettling people evicted "for implementing court orders, other developmental projects or enforcing various acts or rules".



- In other words, it simply subserves the government's implacable intent to remove "encroachers" defined as non-titleholders for a wide range of discretionary purposes ranging from mitigating disaster vulnerability to clearing land for "smoothing traffic" or for various infrastructural or developmental projects.
- Since a large proportion of urban land across Indian cities, including plots purchased and registered, lack the holy grail of legal title, the policy builds on a foundation of widespread vulnerability to eviction without recourse.
- Contrast this with Odisha's award-winning slum rehabilitation project which is transforming urban economies and futures by giving land rights to slum dwellers
- Despite pious language, the Tamil Nadu draft policy is churlish about any real commitments to integration. For example, in addressing the crucial question of distance, it stipulates that travel time by bus or train "should not be more than half an hour to reach the nearest urban areas from where people are expected to be relocated".
- This is, perhaps deliberately, ambiguous. The "nearest urban area" could be a small town. A resettlement colony sited a 30-minute bus ride from a small town can effectively ruralise urban workers, as has occurred in the Gudapakkam resettlement colony built in 2014, about 50 km from Chennai city.
- A clear stipulation of the maximum distance from the previous residence would do the job that this clause pretends to be doing. The Delhi policy, for instance, specifies that the alternate accommodation will be provided "within a radius of 5 km".
- A sensitive policy would build measures to ensure the adequacy, quality and timeliness of amenities in resettlement sites.
- While "integrated townships with all amenities" has been the stated norm for two decades now, resettlement colonies saw these amenities arrive slowly, haltingly, sometimes a decade or more after the move, often following sustained pressure from residents and activists, and often too late to prevent the irrevocable breakdown of fragile livelihood and educational trajectories.
- High drop-out rates, of women from the labour force and children from schools, have been the norm in these colonies.

Engage with the problems

- Given this record, the resettlement policy must demonstrate a more convincing intent to provide decent service standards at the new sites.
- "Transport facilities" cannot mean starting with a few bus routes and increasing them over time, but must comprise adequate, reliable and affordable arrangements before resettlement to ensure that workers seamlessly maintain their links to their workplaces.
- Livelihood support cannot simply mean "skill development training" which almost surely will not translate into employment for an over-40-year-old vendor from the city.
- Most crucially, an effective policy must engage seriously with the complex problems that render these settlements unsafe for women, children and youth.

Fighting mosquito-borne diseases: work in progress

(Source: The Hindu)

Context: Mosquito-borne diseases have been a scourge for thousands of years, with huge armies defeated, and economies shattered. We were therefore relieved to read reports announcing an effective malaria vaccine, following clinical trials in Burkina Faso conducted by the University of Oxford, the Serum Institute of India and others. This West African country has a long and hot season followed by monsoon rains, when mosquitoes emerge in huge swarms. The R21 vaccine has shown an efficacy of 77%, and targets the 'circumsporozite' protein (CSP) of the malarial parasite, Plasmodium falciparum. The sporozite stage of this parasite secretes CSP. Mosquito bites transfer the CSP and sporozites into the human bloodstream, and



the CSP nudges the parasite towards the liver, where it enters liver cells, matures and proliferates. The release of mature merozites marks the onset of the symptoms of malaria.

Efficient vaccines

- The WHO has just cleared another vaccine, called Mosquirix, from Glaxo Smith Kline (GSK) of the U.K.
- With the involvement of the London School of Hygiene and Tropical Medicine, the vaccine has been tested in Kenya, Malawi and Ghana on over 800,000 children and shows an efficiency of over 50% in the first year, but dropping as time progresses.
- The Global Vaccine Alliance (GAVI) is planning to purchase the vaccine for countries that request it. (See a report by Apoorva Mandavilli published in New York Times). Bharat Biotech of Hyderabad has entered into a deal with GSK to develop this vaccine in India, with a dedicated facility at Bhubaneswar.
- Another rapidly spreading disease is dengue. It is spread by Aedes aegypti mosquitoes, which happily grow in small stagnant pools of water, such as in discarded tyres. Four serotypes of the dengue virus are found.
- Serotypes make vaccine development difficult, as a different vaccine is needed against each serotype. A vaccine against dengue, DENGVAXIA, from Sanofi Pasteur, is approved in several countries and shows efficacies ranging from 42% to 78% against the four serotypes of the virus.

Fighting dengue

- In India, Zydus Cadilla has been developing a DNA Vaccine against dengue.
- Dr. Easwaran Sreekumar at the Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram has modelled a consensus of the four serotypes, which is the basis for Zydus Cadilla's DNA vaccine, using a platform that the company successfully developed for their COVID-19 vaccine.

Using parasites

- Other innovative methods to fight dengue have been in the pipeline. One particularly interesting strategy involves a bacterium, Wolbachia pipientis, an intracellular parasite commonly found in many insects, but not in the dengue-carrying mosquito.
- When introduced into this mosquito's cells, this parasite competes successfully against other parasites such as the viruses that cause dengue, chikungunya, yellow fever and Zika.
- Aedes mosquitoes, doped with Wolbachia in the laboratory, are released in localities where the disease is
 prevalent. They quickly spread the bacterium to native Aedes mosquitoes, and the incidence of new
 dengue cases starts to decline.
- In a controlled release study in Djakarta, researchers from the Gadjah Mada University placed clusters of Aedes mosquito eggs infected with Wolbachia in 12 localities of the city in December 2017 (9 other localities served as controls no Wolbachia released).
- By the time the study was halted in March 2020 due to the pandemic, the 12 localities registered 77% fewer cases of Dengue fever compared to the control localities. The intensity of the fever was less, too, with an 86% drop in hospitalisations due to Dengue.

Prevention of disease

- Another way of preventing, rather than curing, mosquito-borne diseases is to accurately predict the next outbreak, and focus your healthcare and mosquito control machinery accordingly.
- Both mosquitoes and the Plasmodium parasite need warm, moist weather to flourish. Using data
 continuously gathered by environmental satellites such as the NOAA-19, scientists at ICMR's National
 Institute of Malaria Research have built elaborate models that correlate monthly rainfall data and data on
 annual state-wise incidence of dengue and malaria with the El-Nino Southern Oscillation, which
 influences global atmospheric circulation.
- The result is an early warning tool that forecasts the start of an outbreak and the dynamics of its progression, along with estimates of the likely number of cases.



- Therefore, health authorities can begin cautionary measures, several weeks in advance, to minimise the impact of an outbreak.
- This information is currently available for Indian States. Refining it to the district level should be the next step.

Will MPLADS be changed for post-pandemic needs?

(Source: The Hindu)

Context: Under the Member of Parliament Local Area Development Scheme, every MP is entitled to ₹5 crore a year, adding up to ₹3,950 crore for the 790 members. The fund is to be utilised for "creation of durable community assets and for provision of basic facilities, including community infrastructure, based on locally felt needs". This money does not directly go to the account of the MPs. They can only recommend works. Thereafter, it is the responsibility of the district authorities to sanction, execute and complete the works within the stipulated period. More money is released only on receipt of the completion certificate. The Ministry of Statistics and Programme Implementation monitors the scheme.

When was the scheme started?

- It was launched during the Narasimha Rao Government in 1993 with the grant of ₹50 lakh a year to each MP. This sum was increased to ₹1 crore during 1994-95. The third revision to ₹2 crore happened in 1997-98.
- The United Progressive Alliance Government in 2011-12 raised the annual entitlement to ₹5 crore. There have been regular demands from MPs across party lines to increase the amount further.

How does it work?

- Each Lok Sabha member has to designate a district as the nodal district. The District Magistrate is responsible for handling the funds and monitoring the projects sanctioned under the scheme. A Lok Sabha member can recommend works in his constituency alone, while a Rajya Sabha member can use the funds for works anywhere in a State.
- In case of a natural calamity, the MPs from non-affected areas in both Houses of Parliament can recommend works estimated at a maximum of ₹25 lakh a year in disaster-hit places.

What are the controversies?

- The scheme was first challenged in 1999 by Jammu and Kashmir National Panthers Party chief Bhim Singh and an NGO, Common Cause.
- They alleged that in the absence of any guidelines, the funds were misused by MPs. In 2005, a sting operation showed some MPs allegedly demanding money from contractors to award work for projects under the scheme.
- The exposé led to the expulsion of members from both Houses. In 2006, the scheme made the headlines because of the allegations that a Trust run by the family of the then Election Commissioner, Navin Chawla, got funds under the scheme.
- Finally, on May 6, 2010, the scheme's constitutional validity was upheld. The Supreme Court said in its judgment that mere allegations that the funds were prone to misuse could not be the ground for scrapping the scheme. However, it suggested improvements to the scheme.

When was the scheme suspended?

• On April 6, 2020, the scheme was suspended for two years. The Government argued that it needed every last penny to tackle the COVID-19 pandemic. The scheme's budget of ₹7,900 crore for two years was to be subsumed under the Consolidated Fund of India.



- This move was severely criticised by the Opposition MPs, who said the State Governments had already been cash-strapped, and they were in a dire need of the funds under the scheme.
- Senior Congress leader Shashi Tharoor argued that the scheme was the only means for an MP to direct development resources to his constituency. "Now the money will be allocated by the Centre and will follow the priorities and preferences of New Delhi, rather than reflect 543 sets of local needs," he wrote on Twitter.

When and why was it restored?

- The Union Cabinet brought back the scheme, almost six months before its expected restoration. According to a statement from the Government, the country is on the road to economic recovery, and the scheme continues to be beneficial to the creation of durable community assets, the fulfilment of the aspirations of the locally felt needs of the community, the skill development and creation of jobs across the country, thus helping to achieve the objective of Atamnirbhar Bharat.
- For 2021-22, it is only a partial restoration, since instead of ₹5 crore for each MP, the sum will only be ₹2 crore.

What are the changes expected?

- The COVID-19 pandemic has forced a significant change in the policy decisions. The Government may refine the scheme to suit the post-pandemic world.
- Currently, the funds are only to be spent on "durable assets", but many MPs have demanded that the guidelines be altered for the funds to be spent on smartphones and laptops for poor students to ensure that they did not miss out on online education in future as they did during the pandemic.

Will India be sanctioned for S-400 purchase?

(Source: The Hindu)

Context: India is preparing for a visit from Russian President Vladimir Putin for an annual bilateral meeting with Prime Minister Narendra Modi in early December, but it is the arrival of the \$5.4-billion Russian long-range surface-to-air missile defence shield "S-400", also expected next month, that is likely to generate more international headlines. The United States Government has made it clear that the delivery of the five S-400 systems is considered a "significant transaction" under its Countering America's Adversaries Through Sanctions Act (CAATSA) of 2017, which could trigger sanctions against Indian officials and the Government.

What kind of sanctions?

- The CAATSA is designed to ensure that no country is able to increase military engagement with Iran, North Korea and Russia without facing deterrent punitive action from the U.S.
- The sanctions are unilateral, and not part of any United Nations decision, and therefore no country is bound to accept them.
- The law that was pushed through by Democrat Congress representatives was signed by President Donald Trump under some protest, as he was keen at the time on improving relations with Russia, and was hoping to broker a deal between the Koreas as well.
- Section 231 says the President shall impose no fewer than five different sanctions on any Government that enters into a significant defence or intelligence deal with the Russian Government.
- Section 235 lists 12 options, including stopping credit lines from U.S. and international banks such as the IMF, blocking sales of licensed goods and technology, banning banks, manufacturers and suppliers, property transactions and even financial and visa sanctions on specific officials.



• However, the law empowers the President to waive sanctions or delay them if he/she certifies that the deal is not a threat to the U.S. and allies, that waiver of sanctions is in the U.S.'s "vital national security interests" or that the country being sanctioned promises to reduce its future dependence on the "adversary country".

Has the U.S. used CAATSA before for S-400 sales?

- The U.S. has already placed sanctions on China and Turkey for purchase of the S-400. In 2018, the State Department said it, along with the Department of the Treasury, would impose sanctions on the People's Liberation Army's Equipment Development Department, and in particular its Director, Li Shangfu, for the purchase of the S-400 system-related equipment and Sukhoi-35 combat aircraft from Russian defence exporter Rosoboronexport.
- The sanctions included denial of export licences, ban on foreign exchange transactions, blocking of all property and interests in property within the U.S. jurisdiction and a visa ban. In 2020, the U.S. sanctioned its NATO partner Turkey, which it had warned about CAATSA sanctions for years, besides cancelling a deal to sell Ankara F-35 jets.
- The sanctions on Turkey's main defence procurement agency, SSB, also included a ban on licences and loans, and blocking of credit and visas to SSB president Ismail Demir and other officials. While U.S. officials hope the sanctions and the promise of a sale of F-16 jets would stave off Turkish President Recep Erdogan's plans to deploy S-400, a deadlock continues.

Which way is the Biden administration leaning on India?

- The Biden administration has not given any firm indication on where it leans on India's case yet. Last month, during a visit to Delhi, U.S. Deputy Secretary of State Wendy Sherman said the U.S. had made it clear that the S-400 is "dangerous and not in anybody's security interest", but left the determination on sanctions after India takes delivery of the missiles to President Biden himself.
- In subsequent weeks, Congress representatives, including the Chairman of the powerful House of Representatives Foreign Affairs Committee (HFAC), Gregory Meeks, a Democrat, as well as several Republicans have called upon the Biden administration to consider a special waiver for India, given India's importance as a defence partner, and as a strategic partner on U.S. concerns over China and in the Quad.
- "Taking a long view, the potential of our long-term strategic partnership with India, and its positive impact on our own security interests, certainly outweighs any kind of benefit from sanctioning India because of its purchase of the S-400," Mr. Meeks said.
- On the other hand, in April 2021, ahead of U.S. Defence Secretary Lloyd Austin's visit to Delhi, Chairman of the Senate Foreign Relations Committee Bob Menendez (also a Democrat) had urged Mr. Austin to raise the S-400 issue with Indian officials, and make it clear that the purchase would lead to sanctions.
- "If India chooses to go forward with its purchase of the S-400, that act will clearly constitute a significant, and therefore sanctionable, transaction with the Russian defense sector under Section 231 of CAATSA. It will also limit India's ability to work with the U.S. on development and procurement of sensitive military technology," Mr. Menendez wrote in his letter.
- Saudi Arabia has also reportedly negotiated with Russia for the S-400, and some experts in the U.S. feel
 that giving a waiver to India would be the wrong signal for others seeking to go ahead with similar deals.
 New Delhi may receive a clearer picture on which way the U.S. will go when External Affairs Minister
 S. Jaishankar and Defence Minister Rajnath Singh are due to meet their American counterparts in the
 next few weeks in Washington.

What is India's position?

• India has not backed down in the face of U.S. opposition thus far, however, and is scheduled to receive the first S-400 deliveries in December. In preparation for the induction, two teams of technicians from the Indian Air Force were trained on the system by the manufacturer, Almaz Antey, in Russia this year.



- After signing the deal in October 2018, during Mr. Putin's last visit to Delhi, India and Russia had protected the advance payments from triggering U.S. sanctions by ensuring a rupee-rouble transfer. In response to questions about Ms. Sherman's tough remarks on the S-400, the Ministry of External Affairs conceded that the issue was "under discussion" between India and the U.S. for some time.
- "It was raised, and we have discussed it and explained our perspective. And discussions on this are ongoing," External Affairs Ministry spokesperson Arindam Bagchi said in a non-committal response in October.

Why is the S-400 deal so important to India?

- Senior Indian officials have held firm that S-400 is very important for India's national security considerations, especially as it faces new threats from China, Pakistan and Afghanistan, calling it a "game changer".
- The system will also offset the air defence capability gaps due to the IAF's dwindling fighter squadron strength. Integrating the S-400 into the national air defence architecture will be much easier as India has a large number of legacy Russian air defence systems, a major reason India did not consider the U.S. air defence systems as a viable alternative.
- In addition, buying the S-400 is a way for the Narendra Modi Government to assert its 'strategic autonomy'.
- This stated principle of Indian foreign policy wavered under pressure from the Trump administration, when India agreed to stop buying Iranian oil over the threat of sanctions in 2019, a move that caused India both financial and reputational damage.
- Not giving in to the U.S.'s unilateral sanctions over the S-400 would be one way to restore some of that.



The debacle of demonetisation

(Source: The Hindu)

Context: On November 8, 2016, the Prime Minister announced that from midnight, ₹500 and ₹1,000 notes would no longer be legal tender. Though Indians were given the opportunity of redeeming the full value of their money held in this form, they could do so only by depositing the notes in a bank or Post Office savings account. The total value of the currency affected by this move, henceforth referred to as demonetisation, was 85%. A former U.S. Secretary of the Treasury said this was by far the "most sweeping change in currency policy that has occurred anywhere in the world in decades". With five years of experience, we are now in a position to give an unqualified verdict on the consequences of this move.

Changing goalposts

- The original argument given for demonetisation was that it would extinguish unaccounted or 'black' money.
- The presumption underlying this was that with unaccounted income inevitably held as cash, owners of these hoards would be hesitant to turn them in to banks as they would have to explain the source.



- When it was pointed out that unaccounted income is very likely to have been converted into real assets or transferred overseas, the government shifted the narrative.
- It then explained that the move was meant to get the economy to run on 'less cash'.
- Finally, it strongly asserted that the move would incentivise direct tax payment and this would raise the government's revenues sufficiently to allow for greater public investment and the provision of more public services.
- The Reserve Bank of India's Annual Report of 2019 settled the first issue conclusively when it reported that approximately 99% of the affected money supply was deposited into accounts with commercial
- So, the existence of black money hoards may have been exaggerated, to put it mildly, even though this does not imply that all earnings were being declared to the income tax authorities.
- What about the predicted move towards less cash?
 - Well, the ratio of currency with the public to national income has, at 11.5%, remarkably remained the same from 2015-16 onwards. Money seems to remain a chosen medium of exchange for Indians, even if purchases are increasingly being made online.
 - Any independent economist could have pointed out to the government that in an economy where a large section of the population has little income to save, cash is likely to stay as a medium of exchange for some time. After all, electronic payments other than those based on credit cards draw upon prior savings.
 - All this is besides the point, however, and misses how disingenuous the official narrative was. If the idea was to make the population use less cash, there was no need for the secrecy implicit in the hurried announcement of demonetisation. It could have been simply achieved by amendment of the Income Tax Act requiring all large-value transactions to be made by cheque or electronic
 - Finally, we come to the claim that demonetisation would lead to an increase in direct tax payments. Why this would be so was never spelt out, but the data can settle this matter conclusively.
 - We find that the ratio of direct tax collections to the national income rose marginally in 2016-17, but higher rates had been achieved earlier. It continued to rise marginally for two more years, but this cannot confidently be attributed to demonetisation alone.
 - The Goods and Services Tax introduced in 2017 may have nudged potential income tax assesses to comply with the law due to the surveillance that came into force. We can see in the Finance Ministry's latest 'Budget at a Glance' that the trend of a rising direct tax to national income ratio came to an end in 2019-20, and is now lower than it was at the beginning of the decade.

Reversing growth acceleration

- With not a single one of the claims made for it having materialised, it may seem that there cannot be a more stinging assessment of demonetisation but there is worse to come. In 2016-17, India's economy did register a slight increase in the rate of growth.
- This may appear to validate the action, but it does not. It is explained by the fact that the growth of the agricultural sector registered a positive swing of over 7% that year. As agricultural yield is weather related, it is independent of economic conditions in the short term.
- But in the other sectors of the economy, production could have been held back by the cash crunch engineered by demonetisation, thus slowing expansion. We see this in the data on the manufacturing sector, with growth slowing by about a third immediately.
- Nevertheless, growth of the overall economy did not slow in 2016-17 as much of the services sector held out. This was to come the next year, with annual growth slowing continuously ever since.
- So, this is something demonetisation did achieve. It reversed a growth acceleration that had been in place for at least two years when the Modi government took over in 2014 and had continued till it met the gleefully named 'surgical strike'.

Imposing hardship



- Numbers cannot, however, capture the hardship and insecurity that were so casually imposed on the population by the move. The country was thrown into utter chaos with people trying to change their hard-earned small cash savings in banks that were utterly unprepared for the task.
- There was an acute shortage of currency notes for at least a couple of months. The supply chain for farm produce was severely disrupted but a history of informal credit meant that it did not die out entirely.
- Indeed, India was bailed out by the traditional practices of its business communities, even as the government was ostensibly goading it into modernity.
- Vladimir Lenin reportedly said, "the best way to destroy the capitalist system [is] to debauch the currency." In one of the ironies of history, a whole century later, a government committed to capitalism in all its forms attempted precisely that. But demonetisation was not just a flawed economic policy move.
- Economic policies must not only be sound, they must also be ethically grounded. While it may have been within the government's constitutional powers to implement demonetisation, on an ethical conception of powers it was a moral failure.
- Perhaps not since Muhammad bin Tughlaq have the people of India been forced to endure as much by the state. The difference is that today India is a democracy.



Current Affairs Quiz

1) Consider the following statements:

- 1. Norovirus causes gastrointestinal illness including inflammation of the lining of the stomach and intestines.
- 2. Symptoms include diarrhea, abdominal pain, vomiting, nausea, head ache, body ache and high temperature.

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: c

2) Consider the following statements:

- 1. One Sun, One World, One Grid (OSOWOG) is an alternative to the International Solar Alliance at the global level.
- 2. The vision behind OSOWOG is 'The Sun Never Sets' and is a constant at some geographical location at any given point of time.

Which of the above statement(s) is **incorrect**?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer: a

The initiative brings together the International Solar Alliance and the UK's green grid initiative and complements India's focus on harnessing the sun's energy.

3) Consider the following statements:

- 1. The Enforcement Directorate is mandated with the task of enforcing only the Foreign Exchange Management Act.
- 2. The term of director of Central Bureau of Investigation and the Enforcement Directorate is five years.
- 3. The Enforcement Directorate is an agency under the Ministry of Finance and the CBI is an agency under the ministry of Home Affairs.

Which of the above statements is/are incorrect?

- a. 1, 2 and 3
- b. 1 and 3 only
- c. 1 and 2 only
- d. 2 and 3 only

Answer: b

It is a Multi Disciplinary Organization mandated with the task of enforcing the provisions of two special fiscal laws – Foreign Exchange Management Act, 1999 (FEMA) and Prevention of Money Laundering Act, 2002 (PMLA).

CBI functions under the superintendence of the Department of Personnel, Ministry of Personnel, Pension & Public Grievances, Government of India - which falls under the prime minister's office.

4) The outcomes of COP26 summit can be summarized into:

1. To phase down the usage of coal and fossil fuel subsidies.



- 2. To halt and reverse deforestation and land degradation.
- 3. A mandatory and binding agreement on Global Methane Pledge was signed.
- 4. To develop Climate-resilient and Low-Carbon health system.
- 5. To look up to forests as a key climate and development solution.

Which of the above statement(s) is/are correct?

- a. 1, 2, 3 and 4 only
- b. 2, 3 and 5 only
- c. 1, 2, 3, 4 and 5
- d. 1, 2 and 4 only

Answer: d

5) Consider the following statements:

- 1. Birsa Munda started the 'Birsait' faith which was joined by the Munda and Oraon communities.
- 2. The 'Ulgulan' movement aimed at establishing Munda Raj.
- 3. The State of Jharkhand was carved out of Bihar to commemorate the birth anniversary of Birsa Munda.

Select the correct answer code:

- a. 1 and 3 only
- b. 2 and 3 only
- c. 1 and 2 only
- d. 1, 2 and 3

Answer: d

6) Consider the following statements:

- 1. A G-Sec is a tradable instrument issued by the Central Government only.
- 2. Short term securities are called Government bonds or dated securities while long term securities are called treasury bills.
- 3. The Central Government issues both bonds or dated securities and bills while the State Government issues only bonds.
- 4. The bond issued by the State Government is called the State Development Loans (SDLs).

Which of the statements given above is/are correct?

- a. 3 and 4 only
- b. 1, 2 and 3 only
- c. 2 and 4 only
- d. 2, 3 and 4 only

Answer: a

A Government Security (G-Sec) is a tradable instrument issued by the Central Government or the State Governments.

Such securities are short term (usually called treasury bills, with original maturities of less than one year) or long term (usually called Government bonds or dated securities with original maturity of one year or more).

7) Consider the following statements:

- 1. National Register of Citizens (NRC)includes demographic information about all those individuals who qualify as citizens of India as per the Citizenship Act, 1955.
- 2. NRC is prepared under the guidelines of Ministry of External Affairs.
- 3. Assam is the only State where an NRC was compiled under the supervision of the apex court.

Which of the above statement(s) is/are correct?

- a. 2 only
- b. 2 and 3 only
- c. 1 and 3 only
- d. 3 only

Answer: c

This NRC was prepared under a directive from the Ministry of Home affairs (MHA).

- 8) Consider the following statements with respect to Kartarpur corridor:
 - 1. Kartarpur Gurudwara is on the banks of river Beas.
 - 2. The Zero Point separates the Indian states of Gujarat and Rajasthan to Sindh province of Pakistan.
 - 3. The present Gurdwara was established by Maharaja Ranjit Singh.

Which of the above statements is/are correct?

- a. 1 and 2 only
- b. 2 and 3 only
- c. 1 and 3 only
- d. 1, 2 and 3

Answer: b

Kartarpur Sahib Gurdwara is located on the bank of river Ravi (Rabi) in Pakistan.

- 9) Consider the following statements:
 - 1. Artemis program of NASA aims to land the first woman and a person of colour on the moon.
 - 2. The Lunar Crater Observation and Sensing Satellite (LCROSS) is designed to search for water and ice on the moon's surface.
 - 3. Chang'e 5 mission aims to collect lunar samples and bring it back to earth.

Which of the above statements is/are correct?

- a. 2 and 3 only
- b. 1 and 3 only
- c. 1 and 2 only
- d. 1, 2 and 3

Answer: c

Chang'e 5 is a Chinese National Space Administration (CNSA) mission.

- 10) Consider the following statements:
 - 1. Navigation with Indian Constellation (NaVIC)will provide two types of services, namely, Standard Positioning Service (SPS) and Restricted Service (RS).
 - 2. Its applications include Terrestrial, Aerial and Marine Navigation, Mapping and Geodetic data capture and Visual and voice navigation for drivers among others.
 - 3. IRNSS-1A spacecraft provides messaging service to users in the Indian region only.

Which of the above statement(s) is correct?

- a. 1 and 3 only
- b. 2 only
- c. 3 only
- d. All of the above

Answer: d

- 11) Consider the following statements regarding:
 - 1. Puri Jagannath Temple is built on the Nagara Style architecture.
 - 2. In front of the entrance stands the Aruna stambha or sun pillar, which was originally at the Sun Temple in Konark.

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: c

12) Consider the following statements about money bill:



- 1. The president should give his assent to the money bill of the State in the first instance.
- 2. With regards to constitutional amendment bills by the state, the president cannot use his absolute veto.

Select the INCORRECT answer code:

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer: c

13) Consider the following statements:

- 1. Panchayats (Extension to Scheduled Areas) Act extends the provisions of Part IX to the Scheduled Area of the country.
- 2. Under the PESA, the Gram Sabha has the power to prohibit/regulate/restrict the sale and consumption of any intoxicant.
- 3. Odisha, Bihar, Uttar Pradesh are the states among other were PESA is implemented.

Which of the above statements are correct?

- a. 1 and 3 only
- b. 1 and 2 only
- c. 2 and 3 only
- d. 1, 2 and 3

Answer: b

It is applicable in the Fifth Schedule areas, which deals with the administration of the districts dominated by the tribal communities, and is in force in 10 states of the country.

These states include Jharkhand, Chhattisgarh, Odisha, Andhra Pradesh, Gujarat, Himachal Pradesh, Madhya Pradesh, Maharashtra, Rajasthan and Telangana.

14) Consider the following statements:

- 1. In a bicameral legislature the Governor can promulgate an ordinance when the legislative council is in session.
- 2. The president can promulgate an ordinance without the prior consent of the Union Cabinet.
- 3. For an ordinance to exist, it should be approved by the Parliament within six months of it being introduced.
- 4. Acts, done and completed under the ordinance before it lapses, remains fully active.

Select the correct answer code:

- a. 3 and 4 only
- b. 3 only
- c. 1 and 2 only
- d. 2 and 3 only

Answer: a

He can only promulgate the ordinance when the both houses or either of the house is not in session.

President promulgates an ordinance on the recommendation of the Union Cabinet.

15) Consider the following statements:

- 1. The Prevention of Children from Sexual Offences (POCSO) Act provides for relief and rehabilitation as soon as the complaint is made to the Special Juvenile Police Unit only.
- 2. The Act provides for the establishment of Special Courts for the trial of offences under the Act.
- 3. POCSO Act is a mandatory international commitment since India is a signatory to the UN convention on the Rights of the Child.

Which of the statements given above is/are correct?

- a. 1 and 2 only
- b. 1 and 3 only



- c. 2 and 3 only
- d. 1, 2 and 3

Answer: d

- 16) Consider the following statements with respect to Jhansi:
 - 1. Jhansi was the last princely state to be annexed by Dalhousie using Doctrine of Lapse.
 - 2. The first female unit of Indian National Army was named after Rani Laxmibai.
 - 3. The princely state of Jhansi is in the present day state of Bihar.

Select the correct answer code:

- a. 2 only
- b. 2 and 3 only
- c. 3 only
- d. 1, 2 and 3

Answer: a

The Princely state of Jhansi is in the present day state of Uttar Pradesh.

Princely States annexed by doctrine of lapse principle: Satara (1848); Jaipur and Sambalpur (1849); Baghat (1850); Udaipur (1852); Jhansi (1853); Nagpur (1854).

- 17) Consider the following statements with respect to repeal of laws:
 - 1. The power to repeal a law is explicitly mentioned in the constitution of India.
 - 2. A law can be repealed only through legislation passed in the parliament.
 - 3. A law can be repealed either in its entirety, in part, or even just to the extent that it is in contravention of other laws.

Which of the statements given above is/are correct?

- a. 2 and 3 only
- b. 1 and 2 only
- c. 1 and 3 only
- d. 1, 2 and 3

Answer: c

Laws can be repealed in two ways — either through an ordinance, or through legislation.

- 18) Consider the following statements:
 - 1. Minimum Support Price is announced during the harvest season for certain crops as recommended by the Commission for Agricultural Costs and Prices (CACP).
 - 2. MSP also includes procurement of perishable and horticulture commodities in the event of fall in market price.
 - 3. Food Corporation of India (FCI) is the designated central nodal agency for price support operations for cereals, pulses and oilseeds.

Which of the statements given above is/are incorrect?

- a. 1 and 2 only
- b. 1 and 3 only
- c. 2 and 3 only
- d. 1, 2 and 3

Answer: a

They are announced by the Government of India at the beginning of the owing season for certain crops on the basis of the recommendations of the Commission for Agricultural Costs and Prices (CACP).

They are announced for cereals, pulses, oilseeds, copra, raw cotton, raw jute and Virginia flu cured (VFC) tobacco.

- 19) Consider the following statements with respect to bamboo production:
 - 1. India is the third largest producer of Bamboo after China and Sri Lanka.



- 2. In India, the Barack Valley region is best suited for bamboo cultivation due to best soil and perfect climate conditions.
- 3. The bamboo plantation grows well in hot to warm temperate climatic conditions.

Select the correct answer code:

- a. 1, 2 and 3
- b. 1 and 3 only
- c. 1 and 2 only
- d. 2 and 3 only

Answer: d

India is the second largest producer of Bamboo in the world after China.

20) Conditions favorable for the formation of a cyclone are:

- 1. The temperature of the surface layer of ocean water must be 26.5 degree Celsius or warmer and must be at least 50 meters deep.
- 2. A preexisting atmospheric circulation must be located near the surface warm layer.
- 3. The wind speed must change slowly with the height through the troposphere.
- 4. The developing system must be closer to the equator.

Codes:

- a. 1, 2 and 3 only
- b. 2, 3 and 4 only
- c. 1, 3 and 4 only
- d. 1, 2 and 4 only

Answer: a

The developing system must be at least 500 km (300 miles) away from the Equator.