

WEEK-2 OCTOBER 2020

MAINS

TRIPS Agreement ECONOMY

- China's Climate
 Commitment Significant is it for the
 Earth, and for India
- The usual Stubble Burning Problem ENVIRONMENT
- Hathras Case- Issues of Consent, Reliability in Narco and Polygraph Tests ETHICS
- Keeping vigil even during Unusual Times GOVERNANCE

PRELIMS

- Major reforms in Natural Gas Marketing ECONOMY
- World's longest highway tunnel opened in Himachal Pradesh
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- State Cabinet nod to make Bodo, the associate official language of the State
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- Cabinet ratifies ban on '7 hazardous chemicals' listed under 'Stockholm Convention
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- China pitches for closer ties with Bangladesh INTERNATIONAL RELATIONS
- India test-fires new version of nuclear capable Shaurya missile
- Supersonic Missile Assisted Release of Torpedo (SMART) system

SCIENCE & TECHNOLOGY



- Disclaimer -

The current affairs articles are segregated from prelims and mains perspective, such separation is maintained in terms of structure of articles. Mains articles have more focus on analysis and prelims articles have more focus on facts.

However, this doesn't mean that Mains articles don't cover facts and PT articles can't have analysis. You are suggested to read all of them for all stages of examination.

CURRENT AFFAIRS ANALYST WEEK- 2 (OCTOBER, 2020)

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IAS MAINS 2020 PROGRAMMES

01	POLITICAL SCIENCE ADVANCE 2020 BY: Dr. PIYUSH CHAUBEY	STARTS	12 OCTOBER
02	GS MAINS QIP 2020 (QUALITY IMPROVEMENT PROGRAMME)	STARTS	14 OCTOBER
03	ETHICS & ESSAY Test Series 2020 By: Manoj K. Jha	STARTS	17 OCTOBER
04	POLITICAL SCIENCE TEST SERIES 2020 BY: Dr. PIYUSH CHAUBEY	STARTS	24 OCTOBER
05	HISTORY TEST SERIES 2020 BY: PIYUSH KUMAR	STARTS	18 OCTOBER
06	GEOGRAPHY TEST SERIES 2020 BY: PRINCE MISHRA	STARTS	17 OCTOBER
07	GS MAINS Test series 2020 (Sectional + Mock)	STARTS	18 OCTOBER
08	GS MAINS MOCK TEST SERIES 2020 (TOTAL 20 TESTS)	STARTS	01 NOVEMBER
 IB, 2nd Floor, Pusa Road Karol Bagh, New Delhi-110005, (Adjacent to Karol Bagh Metro Gate No. 8) info@iasscore.in ()/iasscore 			

SECTION: A (MAINS)

CURRENT AFFAIRS

TRIPS AGREEMENT

CONTEXT

India and South Africa have presented a draft proposal to the World Trade Organization (WTO) for waiver of some provisions of its TRIPS Agreement on intellectual property (IP) protection to fight the novel coronavirus disease (COVID-19) pandemic; it might be a good move, but begs a few questions.

• BACKGROUND:

- On October 2, WTO published the text of a joint submission by the two countries to the WTO TRIPS Council, seeking the waiver for the prevention, containment and treatment of COVID-19.
- It was welcomed by public health activists who have been at the vanguard of the struggle to provide access to medicines.
- They have always held that patents are the major block to providing inexpensive medicines.
- With the SARS-CoV-2 virus wreaking havoc across the world, the World Health Organization had put together the COVID-19 Technology Access Pool (C-TAP).
- It is an initiative of Costa Rica aimed at making vaccines, tests, treatments and other health technologies accessible to all to fight the pandemic.
- Launched at May-end, it garnered the support of 30 countries and a clutch of international partners and institutions. But beyond the high-sounding rhetoric, nothing concrete has come of it.
- The India-South Africa initiative comes as COVID-19 cases are nudging 35.35 million (October 6, 2020) and fatalities have crossed one million.

• ANALYSIS:

What is in the Joint Submission?

- The decision to make the joint submission was taken with the objective of making Covid drugs and vaccines "affordable as well as accessible" for developing and least-developed countries or LDCs, as they are referred to in trade parlance.
- The idea is to ensure that Covid drugs and vaccines, once available in the market, should not come under "unnecessary" regulation that delays their procurement.
- Under the joint submission, India has sought removal, or waiver, of Sections 1, 4, 5, and 7 of Part II of the TRIPS Agreement that pertain to copyright, industrial designs, patents and protection of undisclosed information or trade secrets, for drugs and vaccines aimed at Covid-19.

What is the need of waiver?

- There were several reports about intellectual property rights hindering or potentially hindering the timely provisioning of affordable medical products to Covid-19 patients.
- A particular concern for countries with insufficient or no manufacturing capacity were the requirements for the cumbersome and lengthy process of the import and export of pharmaceutical products.
 - The variation in the price of **Remdesivir** which costs less than USD 1 but is sold in India between Rs 4,000 and Rs 5,400 as an example of how licenses incapacitate Indian companies to supply in middle-income countries.
- Various initiatives to facilitate access to medical products for Covid-19 responses such as ACT-Accelerator, COVAX facility or CTAP so far failed to ensure technology transfer and local production.
- Instead of facilitating technology transfer, ACT-Accelerator and COVAX Facility reinforce the IP regime and delay the disseminating of technology

TRIPS Agreement

- The TRIPS Agreement has been in force since 1995 and is to date the most comprehensive multilateral agreement on intellectual property.
- The TRIPS Agreement introduced global minimum standards for protecting and enforcing nearly all forms of intellectual property rights (IPR), including those for patents.
- International conventions prior to TRIPS did not specify minimum standards for patents. At the time that negotiations began, over 40 countries in the world did not grant patent protection for pharmaceutical products.
- The TRIPS Agreement now requires all WTO members, with few exceptions, to adapt their laws to the minimum standards of IPR protection.
- In addition, the TRIPS Agreement also introduced detailed obligations for the enforcement of intellectual property rights.



WTO members & compulsion

- The World Trade Organization (WTO) is the international organization dealing with the rules of trade between nations.
- As in 2020, WTO has 164 members and 24 observer governments.
- In becoming Members of the WTO, countries undertake to adhere to the 18 specific agreements annexed to the Agreement establishing the WTO.
- They cannot choose to be party to some agreements but not others (with the exception of a few "plurilateral" agreements that are not obligatory).

Doha Declaration on the TRIPS Agreement

• In **November 2001**, WTO members adopted the Doha Declaration on the TRIPS Agreement and Public Health, which is categorical that every member has the right to grant compulsory licences (CLs) and the freedom to determine the grounds upon which such licences are granted.

- The Doha Declaration did not require any amendment to the text of the TRIPS accord because the grounds for CLs were listed in the original text. The Declaration merely served to reinforce that logic.
- India, as the leader of the developing world, was expected to make full use of these provisions.
- But it has been loath to do so for fear of upsetting the US and other big trading partners.
- After issuing one CL in 2008, it has stepped back and refused to issue any more.
- This is despite the urgent need to provide lifesaving drugs at a reasonable cost to a people who are forced to bear the brunt of medical expenses.

• CONCLUSION:

 India will have to do some hard-nosed diplomacy here to swing the proposal its way. If accepted, this proposal will be historic and enable countries to access Covid medicines and vaccines easily, as and when they are available.

GISSCORE

CHINA'S CLIMATE COMMITMENT- SIGNIFICANT IS IT FOR THE EARTH, AND FOR INDIA

CONTEXT

Xi Jinping has promised China would be carbon net-zero by 2060, and apparently advanced the deadline for reaching emissions peak.

• ABOUT:

- It's that time of the year when countries start preparing for negotiations at the year-ending UN climate change conference. This year, the conference is not happening because of the pandemic.
- But, recently China made an unexpected announcement that ensured that there was no lack of climate change excitement this season.
- Speaking at the UN General Assembly, Chinese President Xi Jinping made two promises that came as a welcome surprise to climate change watchers.

Announcement of China

- First, Xi said, China would become carbon netzero by the year 2060. Net-zero is a state in which a country's emissions are compensated by absorptions and removal of greenhouse gases from the atmosphere. Absorption can be increased by creating more carbon sinks such as forests, while removal involves application of technologies such as carbon capture and storage.
- Second, the Chinese President announced a small but important change in China's already committed target for letting its emissions "peak", from "by 2030" to "before 2030". That means China would not allow its greenhouse gas emissions to grow beyond that point. Xi did not specify how soon "before 2030" means, but even this much is being seen as a very positive move from the world's largest emitter.

Importance of net-zero target

- For the last couple of years, there has been a concerted campaign to get countries, especially the big emitters, to commit themselves to achieve "climate neutrality" by 2050.
- This is sometimes referred to as the state of net-zero emissions that would require countries to significantly reduce their emissions, while increasing land or forest sinks that would absorb the emissions that do take place.

- If the sinks are not adequate, countries can commit themselves to deploying technologies that physically remove carbon dioxide and other greenhouse gases from the atmosphere. Most of such carbon dioxide removal technologies are still unproven and extremely expensive.
- Scientists and climate change campaign groups say global carbon neutrality by 2050 is the only way to achieve the Paris Agreement target of keeping global temperatures from rising beyond 2°C compared to pre-industrial times. At the current rate of emissions, the world is headed for a 3° to 4°C rise in temperatures by 2100.

Significance of China's commitment

- China is the world's largest emitter of greenhouse gases. It accounts for almost 30% of global emissions, more than the combined emissions in the United States, the European Union and India, the three next biggest emitters.
- Getting China to commit itself to a net-zero target, even if it is 10 years later than what everyone has in mind, is a big breakthrough, especially since countries have been reluctant to pledge themselves to such long term commitments.
- So far, the European Union was the only big emitter to have committed itself to a net-zero emission status by 2050. More than 70 other countries have also made similar commitments but most of them have relatively low emissions because of which their net-zero status would not help the planet's cause in a big way.
- The real heavyweights whose climate actions are crucial to achieving the Paris Agreement targets are the Big Four — China, the US, the European Union and India — who together account for more than half the global emissions, followed by countries such as Russia, Brazil, South Africa, Japan and Australia.
- A week earlier, South Africa declared its intention to become carbon-neutral by 2050, but other countries have been holding back. The United States, under the Donald Trump administration,

has walked out of the Paris Agreement, and does not even believe in these targets.

India's commitment

- India has resisted pressure to make a long-term commitment, citing the fact that developed countries had utterly failed in keeping their past promises, and never delivered on the commitments they made earlier. India has also been arguing that the climate change actions it has been taking are, in relative terms, far more robust than those of the developed countries.
- Until now, China had been making more or less similar arguments as India. The two countries have historically played together at the climate change negotiations, even though vast differences have emerged in their emissions and development status in the last couple of decades.
- Therefore, China's decision is a big shot in the arm for the success of Paris Agreement. According to Climate Action Tracker, a global group that offers scientific analysis on actions being taken by countries, the Chinese goal, if realised, would lower global warming projections for 2100 by about 0.2° to 0.3°C, the most impactful single action ever taken by any country.

Implications of China's commitment for India

- The Chinese announcement is naturally expected to increase pressure on India to follow suit, and agree to some long-term commitment even if it was not exactly 2050 net-zero goal. That is something that India is unlikely to do.
- Earlier this year, India was in the process of formulating a long-term climate policy for itself, but that effort seems to have been shelved as of now.
- Another side-effect of the Chinese decision could be an increased divergence in the positions of India and China at the climate negotiations. China might now have fewer grounds to align itself with India as a developing country.

• CONCLUSION:

 China's President Xi Jinping has indeed surprised the global community recently by committing his country to net-zero emissions by 2060. However, it remains to be seen whether China's climate promise is genuine, or simply a ploy to win international favour.

THE USUAL STUBBLE BURNING PROBLEM

CONTEXT

Delhi's overall air quality, which currently lies in the 'moderate' category, is all set to deteriorate in the coming days due to a spike in stubbing burning activity across northwest India and other meteorological conditions.

• BACKGROUND:

- Every year, a choking smog descends on northwest India as the region's farmers burn their fields following the rice harvest - a phenomenon that has helped make New Delhi one of the world's most polluted cities.
- The states surrounding Delhi are known collectively as the "grain bowl" of India after the agricultural sector underwent a green revolution in the 1960s, leading to a dramatic increase in rice and wheat productivity.
 - In Haryana alone, 80% of the almost 5 million hectares of land is now under cultivation, producing over 13 million tons of grain per year.
- But as production grew, the sector could not keep up with an increasing demand for labor, with farmers eventually abandoning hand harvesting in favor of less labor-intensive methods such as the combine harvester.
- Unlike manual harvesting techniques however, combine harvesters leave behind rice stubble, which prevents machines from sowing wheat seeds.
- With as little as 10 days between rice harvesting season and the sowing of wheat, farmers often turn to stubble burning to quickly remove the remaining rice crop residue.
- When farmers are unable to move the loose residue, they are left with no option except burning.

• ANALYSIS:

What is Stubble Burning?

- Stubble burning is, quite simply, the act of removing paddy crop residue from the field to sow wheat.
- It's usually required in areas that use the 'combine harvesting' method which leaves crop residue behind.
 - Combines are machines that harvest, thresh i.e separate the grain, and also clean the separated grain, all at once.
- The problem, however, is that the machine doesn't cut close enough to the ground, leaving stubble behind that the farmer has no use for.

There is pressure on the farmer to sow the next crop in time for it to achieve a full yield. The quickest and cheapest solution, therefore, is to clear the field by burning the stubble.

Spike in stubble burning

- Stubble burning remains a persistent contributor to Delhi's high pollution levels, causing a smoglike situation in Delhi-NCR every year post autumn and creating a health hazard for its residents.
- A sharp increase in stubble burning fires was observed around Punjab, Haryana, and neighbouring border regions," as per SAFAR.
- The first two weeks of paddy harvesting that started from September third week this year saw the number of stubble burning cases across Punjab rise to a whopping 1,206!
- This is almost five times the number of cases (264) recorded during the Kharif harvest of 2019 in the corresponding time period.
- SAFAR added that the boundary layer wind direction has remained favourable for the transportation of stubble smoke into the landlocked capital, and hence, the stubble fires are expected to start impacting Delhi's atmosphere in the days to come.
- For the rest of the ongoing week, however, SAFAR forecast indicates Delhi's AQI will deteriorate marginally but remain in the moderate category nevertheless.

What happens every year?

- According to a 2018 study conducted by The Energy and Resources Institute (TERI) and the Automotive Research Association of India (ARAI), the major sources of pollution in Delhi in the summer include:
 - dust and construction activities (38-42 per cent)
 - ► transport (15-17 per cent)
 - ► industry (22 per cent)
- However, as the winter approaches, farmers in Punjab and Haryana begin to clear out the paddy residue on their farmlands by setting it on fire.
- The particulate matter from these fires travels down the **entire Gangetic plain**, enveloping vast swaths of northern India in smoke.

- Cities like Delhi, Noida and Gurgaon, which are already choked with pollution from vehicles and industries that operate year-round, bear the brunt, as their meteorological conditions prevent the smoke from dissipating.
- As winter sets in, the cold makes it harder for the particulate matter to rise up — leaving people exposed to the toxic smog.
- The festival of Diwali introduces more pollutants as people light firecrackers.
- Between 2016 and 2018, Delhi pollution levels did dip by about 25 per cent, but the AQI numbers remained far higher than what is considered to be safe.
- According to a study by the Centre for Science and Environment, Delhi needs to cut its pollution levels further by 65 per cent to meet air quality standards.

Is it a crime?

- Burning crop residue is a crime under Section 188 of the IPC and under the Air and Pollution Control Act of 1981.
- However, government's implementation lacks strength.

Assessing the impacts of Stubble Burning

- Burning crop residue directly contribute to environmental pollution, and are also responsible for the haze in Delhi and melting of Himalayan glaciers.
- One ton of residue contains 4-6 kg of nitrogen, 1-2 kg of phosphorus, and 15-20 kg of potassium.
- Besides causing air pollution, burning stubble also affects the fertility of the soil as it causes loss of nitrogen, sulphur, potassium and bacteriological content of the soil.
- The heat from burning paddy straw penetrates 1 centimetre into the soil, elevating the temperature to 33.8 to 42.2 degree Celsius. This kills the bacterial and fungal populations critical for a fertile soil.
- Burning of crop residue causes damage to other micro-organisms present in the upper layer of the soil as well as its organic quality. Due to the loss of 'friendly' pests, the wrath of 'enemy' pests has increased and as a result, crops are more prone to disease. The solubility capacity of the upper layers of soil have also been reduced.

Could new technology trigger a second revolution?

 India urgently needs to undergo a second, "evergreen" revolution, driven by technology such as the:

- happy seeder, a machine which allows wheat to be sown on top of rice stubble
- the super sms (straw management system), a machine which attaches to the rear of a combine harvester to cut and spread loose residue across the field.

Important Artificial Machines

- Happy Seeder(used for sowing of crop in standing stubble)
- Rotavator (used for land preparation and incorporation of crop stubble in the soil)
- Zero till seed drill (used for land preparations directly sowing of seeds in the previous crop stubble)
- Baler (used for collection of straw and making bales of the paddy stubble)
- Paddy Straw Chopper (cutting of paddy stubble for easily mixing with the soil)
- Reaper Binder (used for harvesting paddy stubble and making into bundles)
- Agricultural productivity can be improved with the use of happy seeders and super sms machines by between 10 and 15%, by reducing labor costs and time and allowing nutrients from the crop residue to be recycled back into the soil.
- Instead of burning of the stubble, it can be used in different ways like cattle feed, compost manure, roofing in rural areas, biomass energy, mushroom cultivation, packing materials, fuel, paper, bioethanol and industrial production, etc.

What else can be done?

- Agriculture conservation should be promoted with "low lignocellulosic" crop residues such as rice, wheat and maize.
- Crop residue-based briquettes ought to be encouraged and thermal power plants in the vicinity ought to be encouraged to undertake cofiring of crop residues with coal.

• CONCLUSION:

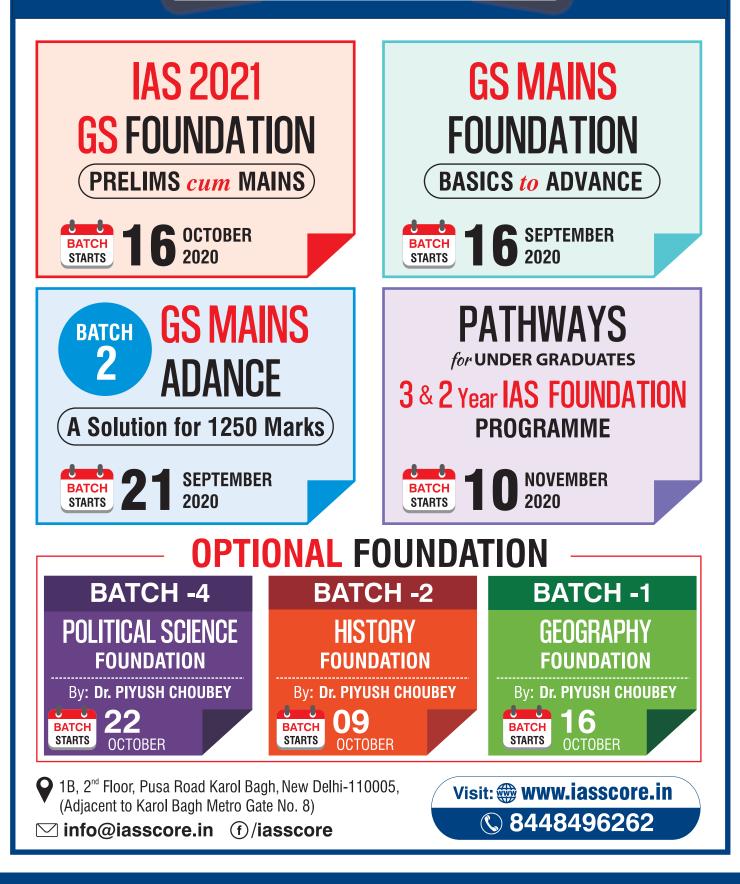
 The problem is complex and needs a solution. But the solution should take into consideration the economic condition of farmers, the scientific options available and the willingness of the Central government to change policy and fund a major part of the expenditure.





IAS 2021-22 GS FOUNDATION

LIVE & INTERACTIVE CLASSES



HATHRAS CASE- ISSUES OF CONSENT, RELIABILITY IN NARCO AND POLYGRAPH TESTS

A spokesperson for the Uttar Pradesh government recently said that **polygraph and narcoanalysis tests would be conducted** as part of the investigation into the alleged gangrape and murder of a 19-year old Dalit woman by four men of the Thakur caste in Hathras last month.

Polygraph and narcoanalysis tests

- **A polygraph test** is based on the assumption that physiological responses that are triggered when a person is lying are different from what they would be otherwise.
- Instruments like cardio-cuffs or sensitive electrodes are attached to the person, and variables such as blood pressure, pulse, respiration, change in sweat gland activity, blood flow, etc., are measured as questions are put to them.
- A numerical value is assigned to each response to conclude whether the person is telling the truth, is deceiving, or is uncertain.
- A test such as this is said to have been first done in the 19th century by the Italian criminologist Cesare Lombroso, who used a machine to measure changes in the blood pressure of criminal suspects during interrogation. Similar devices were subsequently created by the American psychologist William Marstron in 1914, and by the California police officer John Larson in 1921.
- Narcoanalysis, by contrast, involves the injection of a drug, sodium pentothal, which induces a hypnotic or sedated state in which the subject's imagination is neutralised, and they are expected to divulge information that is true.
- The drug, referred to as "truth serum" in this context, was used in larger doses as anaesthesia during surgery, and is said to have been used during World War II for intelligence operations.
- More recently, investigating agencies have sought to employ these tests in investigation, and are sometimes seen as being a "softer alternative" to torture or "third degree" to extract the truth from suspects.
- However, neither method has been proven scientifically to have a 100% success rate, and remain contentious in the medical field as well.

Supreme Court's ruling on these tests

 In 'Selvi & Ors vs State of Karnataka & Anr' (2010), a Supreme Court Bench comprising Chief Justice of India K G Balakrishnan and Justices R V Raveendran and J M Panchal ruled that no lie detector tests should be administered "except on the basis of consent of the accused".

- Those who volunteer must have access to a lawyer, and have the physical, emotional, and legal implications of the test explained to them by police and the lawyer, the Bench said.
- It said that the 'Guidelines for the Administration of Polygraph Test on an Accused' published by the National Human Rights Commission in 2000, must be strictly followed. The subject's consent should be recorded before a judicial magistrate, the court said.
- The results of the tests cannot be considered to be "confessions", because those in a drugged-induced state cannot exercise a choice in answering questions that are put to them.
- However, any information or material subsequently discovered with the help of such a voluntarilytaken test can be admitted as evidence, the court said.
- Thus, if an accused reveals the location of a murder weapon in the course of the test, and police later find the weapon at that location, the statement of the accused will not be evidence, but the weapon will be.
- The Bench took into consideration international norms on human rights, the right to a fair trial, and the right against self-incrimination under Article 20(3) of the Constitution.

Can people other than the accused in a criminal investigation — witnesses, victims, their families — through these tests?

- The Supreme Court had said in its order that "no individual should be forcibly subjected to any of the techniques in question, whether in the context of investigation in criminal cases or otherwise", and expanded the same rule to others who can be made to undergo the test only if they consent to it.
- It had said that forcing an individual to undergo these tests amounts to an "unwarranted intrusion into personal liberty", but had left scope for "voluntary administration" of these techniques if the individuals gave consent.
- The court examined the scope of Article 20(3), the right against self-incrimination, which states that no accused can be compelled to be a witness against himself.

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- It said that while this requires a person to be formally named as an accused, other provisions of the Criminal Procedure Code extend this protection to witnesses as well.
- With reference to victims, especially of sexual offences, the Bench said that irrespective of the need to expedite the probe in such cases, a victim of an offence cannot be forced to undergo these tests as it would be "an unjustified intrusion into mental privacy and could lead to further stigma for the victim".

Criminal cases in recent years where these tests been used

- In most cases, investigating agencies seek permission for such tests to be done on accused or suspects, but rarely on victims or witnesses.
- Legal experts say that investigating agencies can submit to a court that the tests are being sought to help in their probe but consent or refusal to undergo the tests by an individual do not reflect innocence or guilt.
- Most recently, the CBI has sought to conduct these tests on the driver and helper of the truck that hit the Unnao rape victim in Uttar Pradesh in July last year. It also sought to conduct the tests on one accused in the Punjab National Bank alleged fraud case, but the court rejected the plea after the accused did not give consent.
- In May 2017, the founder of INX Media, Indrani Mukerjea, who is facing trial for the alleged murder of her daughter Sheena Bora in 2012, had offered to undergo the lie detector test, which was refused by the CBI, stating that they had sufficient evidence against her.
- The polygraph test was also conducted on Dr Rajesh Talwar and Dr Nupur Talwar, who were accused of killing their daughter Aayushi and help Hemraj in Noida.

Critical analysis of polygraph:

- The test does not tell as to whether the subject is lying or not. Results only show about the physiological changes which have to be interpreted by the expert.
- In asking the question no science is involved and it wholly depends upon trickery and on the expertise of the examiner.
- A person who can control his emotions to a great extent can still tell a lie, e.g., if a person has control on himself by practice of yoga or otherwise, this test is bound to fail.

- Nervousness may be exhibited by many innocent and truthful persons under the conditions of police interrogations. This nervousness may arise due to various reasons, e.g., fear of being involved in the crime, or the fear that his or her previous conduct may be shown to the police what is not related to the present crime.
- It may also be due to the fact of not properly understanding the procedure of polygraph, besides there may be fear of wrong interpretation of chart by the examiner and even the interrogator and examiner may be biased.
- If the examiner holds the subject guilty, he may interpret the chart with that bent of mind and vice versa he may be lenient in interpreting, chart of a person whom he considers innocent.

Critical analysis of brain mapping

- This test has its own limitations. The test is conducted by a human being and it is possible that they fail to fully and truthfully analyze the brain wave.
- An innocent person who has not committed the crime but has only witnesses of wound also react to the stimuli. Similarly, a person may be aware of the crime due to details published in media and the brain may store it. In that case also there chance is that the innocent can also be found guilty.
- Therefore, this tests utility is only to imprint the subject's brain, which makes it clear that the subject is innocent.
- This technique is also criticized on the ground that it is violation of brain privacy. By this a person loses his right to keep his thought to himself.
- This is also not useful in case of a person who loses his memory, e.g., old people easily lose memory.

• CONCLUSION:

 As India is confronted with cross-border terrorism and a tough internal security scenario hence use of technologies are vital for the nation to deal with these challenges. However, rapidly and swiftly these scientific tools of investigation can become an alternate of third degree physical torture in police custody. As was rightly held by the Supreme Court in D. K. Basu v. State of West Bengal , that there is need for developing scientific methods of investigation and interrogation of accused as custodial deaths and torture is nothing but a blow at rule of law.



KEEPING VIGIL EVEN DURING UNUSUAL TIMES

CONTEXT

The latest India-specific data on COVID-19 infections is alarming. With the nation spending substantial resources to manage the pandemic, the role of the supreme audit institution of India, the Comptroller and Auditor General (CAG) of India has again been highlighted.

• BACKGROUND:

- The latest audit of the Union Government's accounts tabled in Parliament in September reveals that the Finance Ministry quietly retained over 40% of all cess collections in 2018-19 in the Consolidated Fund of India (CFI).
- As many as 35 different cesses, levies and charges yielded Rs. 2.75-lakh crore in the year, but just around Rs. 1.64-lakh crore was remitted to the specific reserve funds for which these cesses were levied.
- This not only helped understate India's revenue and fiscal deficit numbers but also meant that the purposes for which Parliament approved such cesses — be it health, education or infrastructure development — were not met.
- The Comptroller and Auditor General of India (CAG) has pointed out grave lapses in the accounting of revenue from the GST compensation cess.
- The CAG of India has, not for the first time, urged the Finance Ministry to take immediate corrective action.
- Over 10 years, not a paisa of the Rs. 1.25-lakh crore of cess collected on crude oil was transferred to an oil industry development body it was meant to finance.
- Part of the hefty cess collected as additional excise duties on petrol and diesel, ostensibly to finance roads and infrastructure, was similarly retained in the CFI.

• ANALYSIS:

- The CAG of India is an independent constitutional authority who is neither part of the legislature nor executive.
- Appointment and removal: He is appointed by the President under his hand and seal and can be removed only through a motion of impeachment.
- **Selection:** The constitution of India protects the independence of the CAG. However, there is no laid down criteria for selection of the CAG.
- Dr B.R. Ambedkar described the CAG as the most important functionary under the constitution.
- The CAG is the Supreme Audit Institution or SAI of India.
- The CAG is the instrument that ensures and promotes accountability of the executive to parliament.

- The CAG is an auditor to the government of India, which is headed by the prime minister.
- He is the guardian of the public purse and controls the financial system of the country both at the central level and state level.

Constitutional Provisions Related to CAG

- **Part V**, Chapter V of the Constitution of India, talks about the Comptroller and Auditor General of India.
- Article 148 speaks of the CAG, his appointment, the oath of his service.
- **Article 149** broadly speaks of the duties and powers of the CAG.
- Article 150: The accounts of the Union and States shall be kept in such form as the President may prescribe on the advice of the CAG.
- Article 151: The reports of the CAG relating to the Union shall be submitted to the President. The reports of the CAG relating to the State shall be submitted to the Governor.

Historical Background of the Office

- The office of CAG started functioning from 1858, and the first Auditor General was appointed in 1860.
- However, statutory recognition to this institution was given by the Government of India Act of 1935, which provided for appointment of the Auditor General by the King of England, thereby cementing the independence enjoyed by the post in the years to follow.
- The constitution of free India included four articles (148, 149, 150 and 151) which define the basic structure of the institution of the CAG of India.

Mandate of CAG

 As envisaged in Article 149 of the Constitution, the Parliament enacted a detailed legislation called the CAG's Duties, Powers and Conditions Act in 1971 which describes his mandate and puts almost every spending, revenue collecting or aid/grant receiving unit of the Government (the Centre and the States) under his audit domain. His duties are to audit and report upon:



- All receipts into and spending from the coffers (called the Consolidated Fund) of the Union and State Governments.
- ➤ All transactions relating to the Emergency expenses (called Contingency Funds) and relating to the monies of the public held by the Government e.g. Postal savings, Vikas Patras (called Public Accounts) at Central as well as State levels.
- All trading, manufacturing, profit and loss accounts, balance sheets and other subsidiary accounts kept in any Government department.
- All stores and stock accounts of all Government offices and departments.
- ► Accounts of all Government companies and Corporations e.g. ONGC, SAIL etc.
- Accounts of all autonomous bodies and authorities receiving Government money e.g. municipal bodies, IIM's, IIT's, State Health societies.
- Accounts of any body or authority on request of the President/Governor or on his own initiative.

Audit Reports

- CAG submits three audit reports to the President:
 - Audit report on appropriation accounts.
 - > Audit report on financial accounts.
 - > Audit report on public undertakings.

International Practice

- Internationally, most countries have enacted laws putting in certain qualifications and also the process of appointment of the head of their SAI, so that he works independently and is not under the influence of the Executive, whose performance he is required to evaluate and provide audit opinion on achievement of the objectives.
- United Kingdom: The Exchequer and Audit Act of the United Kingdom, as amended in 1983 provides that the CAG will be jointly selected by the Prime Minister and Chairman of the Committee of Public Accounts and thereafter ratified by the House of Commons.
- United States: In the USA, under Section 302 of the Budget and Accounting Act, 1921, and the subsequent amendment of the General Accounting Office Act, 1980, the Comptroller General of the United States is appointed by the President on the consent of the Senate.
 - ➤ Further, under an amendment carried out through Section 104 of the General Accounting Office Act of 1980, a commission has to advise the President.
- **Canada:** In Canada, the Governor in Council appoints the Auditor General of Canada after

consultation with the leader of every recognised party in the Senate and House of Commons and approval of the appointment by resolution of the Senate and the House of Commons.

- **Australia:** The governor general appoints the auditor general only after the Joint Committee of Public Accounts and Audit approve the proposal.
- **New Zealand:** The Public Audit Act (2001) of New Zealand provides for the appointment of the CAG by the Governor General on the recommendations of the House of Representatives.
- **Japan:** Japan has a Board of Audit with an Audit Commission consisting of three Commissioners and a General Executive Bureau.
 - A Commissioner is appointed with the consent of the both Houses of the Diet by the Cabinet.
 - The President of the Board is to be appointed by the Cabinet according to the result of mutual election among the Commissioners.
- **Sri Lanka:** The constitution of Sri Lanka provides that the Auditor-General shall be a qualified Auditor and should be appointed by the President subject to the approval of the Constitutional Council.
- **Bhutan:** In Bhutan, the Auditor General is to be appointed by the Druk Gyalpo from a list of eminent persons recommended jointly by the Prime Minister, the Chief Justice of Bhutan, the Speaker, the Chairperson of the National Council and the Leader of the Opposition Party.
- Africa: In Africa, Constitution of Malawi provides that no person shall be appointed as Auditor General unless that person has formal relevant qualifications and significant experience in audit work.

UNGA Resolution

- Internationally, a resolution adopted by the General Assembly of the United Nations on December 22, 2011, emphasised that SAIs can perform their tasks objectively and efficiently only if they are independent of the audited entity and are protected against outside influence.
- It also recognised the important role that SAIs play in promoting efficiency, accountability, effectiveness and transparency of public administration.
- Thus, appointment of the CAG assumes greater significance.

• CONCLUSION:

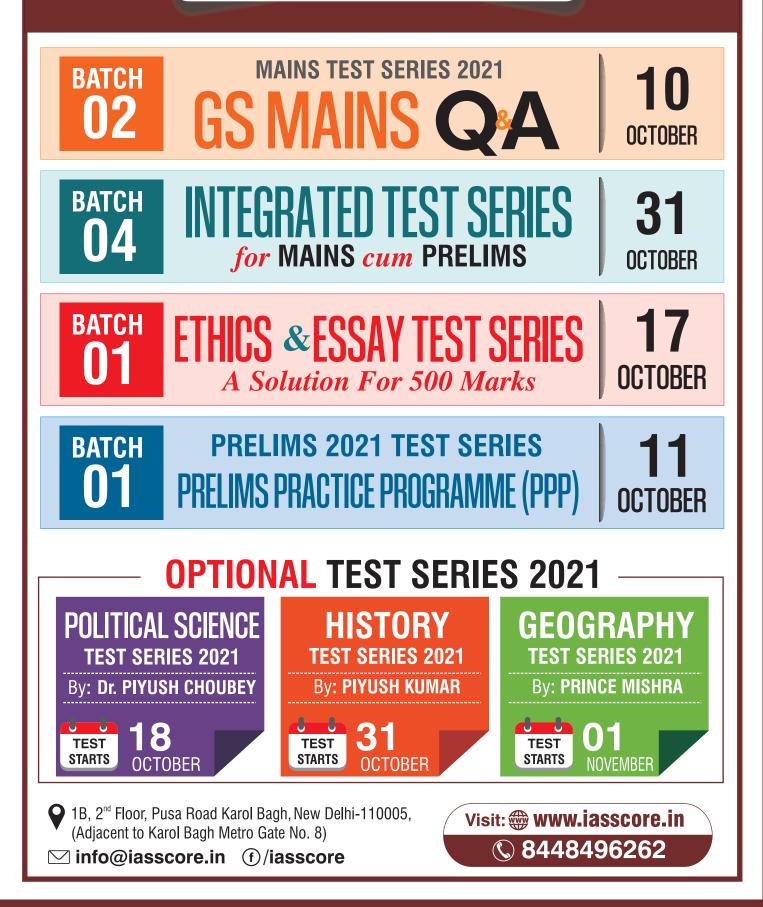
 The CAG has the inescapable constitutional and statutory mandate and responsibility to ensure public accountability, transparency, effective service delivery and good governance.





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MAINS & PRELIMS



SECTION: B (PRELIMS)

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• ABOUT:

MAJOR REFORMS IN NATURAL GAS MARKETING

• **CONTEXT:** The Government gave nod to major reforms in the marketing of Natural Gas in the country, taking another significant step to move towards gas based economy.

• Natural gas is a fossil energy source that formed deep beneath the earth's surface. Natural gas contains many different compounds.

- The largest component of natural gas is methane, a compound with one carbon atom and four hydrogen atoms (CH4).
- Natural gas also contains smaller amounts of natural gas liquids (NGL, which are also hydrocarbon gas liquids), and nonhydrocarbon gases, such as carbon dioxide and water vapor.
- Natural gas is used as a fuel and as a feedstock, with demand largely dependent on fertiliser industry (28%), power (23%), city gas distribution entities (16%), refinery (12%) and petrochemicals (8%) industries.
- India currently produces 84 million standard cubic meters (MMSCM) of natural gas and imports around the same amount.
- With the new reforms, 40 MMSCM will come into local production. Country's dependency on import of natural gas will reduce.
- The Ministry of Petroleum & Natural Gas is entrusted with the responsibility of exploration and production of oil and natural gas, their refining, distribution and marketing, import, export and conservation of petroleum products and Liquified Natural Gas.

Key-highlights of the Policy

- **Standard Procedure:** The objective of the policy is to prescribe standard procedure to discover market price of gas to be sold in the market by gas producers, through a transparent and competitive process, permit Affiliates to participate in bidding process for sale of gas and allow marketing freedom to certain Field Development Plans (FDPs) where Production Sharing Contracts already provide pricing freedom.
- **Transparent Bidding Process:** The policy aims to provide standard procedure for sale of natural gas in a transparent and competitive manner to discover market price by issuing guidelines for sale by contractor through e-bidding.
 - This will bring uniformity in the bidding process across the various contractual regimes and policies to avoid ambiguity and contribute towards ease of doing business.
 - The policy has also permitted Affiliate companies to participate in the bidding process in view of the open, transparent and electronic bidding.
 - This will facilitate and promote more competition in marketing of gas. However, rebidding will have to be done in case only affiliates participate, and there are no other bidders.
- Freedom to FDPs: The policy will also grant marketing freedom to the Field Development Plans (FDPs) of those Blocks in which Production Sharing Contracts already provide pricing freedom.

Significance of the Reforms

These reforms will build on a series of transformative reforms rolled out by the Government in last several years. These reforms in gas sector will further deepen and spur the economic activities in the following areas:

• **Transparent system:** The whole eco-system of policies relating to production, infrastructure and marketing of natural gas has been made more transparent with a focus on ease of doing business.



- **Encouraging investment in domestic production:** These reforms will prove very significant for Atmanirbhar Bharat by encouraging investments in the domestic production of natural gas and reducing import dependence.
- **Increasing investment in downstream industries:** The domestic production will further help in increasing investment in the downstream industries such as City Gas Distribution and related industries.
 - These reforms will prove to be another milestone in moving towards a gas based economy by encouraging investments.
- **Improvement in environment:** The increased gas production consumption will help in improvement of environment.
- **Creating employment:** These reforms will also help in creating employment opportunities in the gas consuming sectors including MSMEs.

WORLD'S LONGEST HIGHWAY TUNNEL OPENED IN HIMACHAL PRADESH

- **CONTEXT:** Prime Minister Narendra Modi inaugurated the Atal Tunnel at Rohtang at an altitude of above 3,000 metres in Himachal Pradesh to provide new strength to the country's border infrastructure.
- ABOUT:
- The 9.02 km-long-tunnel, built by the **Border Roads Organisation (BRO)**, is the world's longest highway tunnel and connects Manali to Lahaul-Spiti valley.
 - The **South Portal (SP)** of Atal Tunnel is located at a distance of 25 km from Manali at an altitude of 3,060 metres
 - The North Portal (NP) of the tunnel is located near village Teling, Sissu, in Lahaul
 Valley at an altitude of 3,071 Metres.
- It provides **all-weather connectivity** to the landlocked valley of **Lahaul-Spiti**, which remains cut-off for nearly six months in a year as the **Rohtang Pass** is usually snow-bound between November and April.
- The tunnel is built with ultra-modern specifications in the **Pir Panjal range** of Himalayas at an altitude of 3000 metres (10,000 feet) from the Mean Sea Level (MSL).
- The tunnel was constructed using drill and blast NATM (New Austria Tunnelling Method) techniques.

Significance of the development

- **Round-the-year connectivity:** Before the tunnel construction, the Lahaul Valley used to remain closed for vehicular movement due to bad weather conditions. Now, the people of the Valley will have round-the-year road connectivity.
- **Reduction in distance:** The tunnel reduces the distance by 46 km between Manali and Leh and the travel time by about 4 to 5 hours.
- **Better connectivity to the armed forces:** The tunnel, also significant from the military logistics viewpoint, will provide better connectivity to the armed forces in reaching Ladakh.
- **Boost tourism**: It is expected to boost tourism and winter sports in the region.



WEEK - 2 (OCTOBER, 2020)

• Length: 9.02 km	Distance reduced: 46 km	Telephone facility:	• Turning cavern: Every 2.2 km	2002
Shape: Horse shoe	orse shoe • Time saved: 5 hours Every 150 m		Air quality monitor:	Atal Bihari
Located below the Rohtang Pass, it connects Manali to Lahaul-Spiti Valley	Altitude: 3,000 m above mean sea level	Fire hydrant:	Every 1 km	Vajpayee laid foundation stone for approach road to the tunnel
	Single-tube, double lane tunnel	• Emergency exits:	Automatic incident detection system with CCTV	
	Maximum vehicle speed: 80 km/hr	Every 500 m	cameras: Every 250 m	

STATE CABINET NOD TO MAKE BODO, THE ASSOCIATE OFFICIAL LANGUAGE OF THE STATE

• CONTEXT:	The Assam cabinet has decided to make Bodo the associate official language of the state.
• ABOUT:	 Bodos are the single largest tribal community in Assam, making up over 5-6 per cent of the state's population. They have controlled large parts of Assam in the past.
	• The four districts in Assam — Kokrajhar, Baksa, Udalguri and Chirang — that constitute the Bodo Territorial Area District (BTAD), are home to several ethnic groups.
	• The Bodos are considered to be the earliest indigenous inhabitants of the Brahmaputra valley having their own kingdom, religion, culture and language.
	• There are different opinions by historians regarding the origin of Bodos, with many saying that the term 'Bodo' is derived from the Tibetian word 'Bod' — meaning homeland.
	 According to historians, they belong to the Tibeto-Burman family of the Mongoloid race.
	• Their population is concentrated mostly on the North bank of the Brahmaputra river, in western and parts of Central Assam, the northern part of West Bengal and in some parts of Bhutan and Nepal, Arunachal Pradesh and Nagaland.
	• The traditional religion of the Bodos is Bathouism — they traditionally worship Bathou- Borai, often identified as the Hindu God Shiva.
	 About Bodo Language Bodo language, which is one of the 22 scheduled languages of the country. Bodo language, a language of the Tibeto-Burman branch of Sino- Tibetan languages having several dialects. Bodo is spoken in the northeastern Indian states of Assam and Meghalaya and in Bangladesh. It is related to Dimasa, Tripura, and Lalunga languages, and it is written in Latin, Devanagari, and Bengali scripts.

Bodo-Kachari autonomous welfare council

- The State Cabinet has also created Bodo-Kachari autonomous welfare council outside the **sixth schedule area** for the welfare of the community, particularly for those who living outside the areas of the Bodoland Territorial Region (BTR).
 - The Sixth Schedule of the Constitution has provisions for the administration of tribal areas in the border states of Assam, Meghalaya, Tripura and Mizoram.
 - It has provisions for the constitution of autonomous districts and councils.
- With this, the Assam government has fulfilled one of the key promises of the Bodoland accord signed with the National Democratic Front of Boroland (NDFB) earlier this yea



The Third Accord

- The BTAD was rechristened Bodoland Territorial Region (BTR) with the signing of the third Bodo accord on 27 January.
- The Centre and Assam government signed the accord with the four factions of the NDFB and the ABSU.
- In this accord, the government has made a provision under the **Sixth Schedule** of the Constitution to appoint a commission that would recommend the 'inclusion and exclusion' of villages under BTR.

BTR Elections

- In another important move for the Bodoland region, the state cabinet decided to request State Election Commission to schedule BTR election in December 2020.
- The term of the sixth schedule erstwhile Bodoland territorial council (BTC) ended on April 27.
- Election to the council were to be held April 4, but had to be indefinitely deferred due to COVID-19 pandemic and the ensuing lockdowns.

CABINET RATIFIES BAN ON '7 HAZARDOUS CHEMICALS' LISTED UNDER 'STOCKHOLM CONVENTION'

• **CONTEXT:** The Union Cabinet ratified ban on seven Persistent Organic Pollutants (POP's) listed under Stockholm Convention and hazardous to health and environment.

• ABOUT: What are POPs?

- POPs are listed in various Annexes to the Stockholm Convention after thorough scientific research, deliberations and negotiations among member countries.
- Persistent Organic Pollutants (POPs) are organic chemical substances, that is, they are carbon-based. They possess a particular combination of physical and chemical properties such that, once released into the environment, they:
 - remain intact for exceptionally long periods of time (many years)
 - become widely distributed throughout the environment as a result of natural processes involving soil, water and, most notably, air
 - accumulate in the fatty tissue of living organisms including humans, and are found at higher concentrations at higher levels in the food chain
 - are toxic to both humans and wildlife.
- Exposure to POPs can lead to cancer, damage to central and peripheral nervous systems, diseases of immune system, reproductive disorders and interference with normal infant and child development.

BACKGROUND: Considering its commitment towards providing safe environment and addressing human health risks, the Ministry of Environment, Forest and Climate Change (MoEFCC) had notified the 'Regulation of Persistent Organic Pollutants Rules', in 2018 under the provisions of Environment (Protection) Act, 1986.

• The regulation inter alia prohibited the manufacture, trade, use, import and export seven chemicals which were already listed as POPs under Stockholm Convention, namely-



- Chlordecone
- Hexabromobiphenyl
- Hexabromodiphenyl ether and Heptabromodiphenylether (Commercial octa-BDE)
- Tetrabromodiphenyl ether and Pentabromodiphenyl ether (Commercial penta-BDE)
- Pentachlorobenzene
- Hexabromocyclododecane
- Hexachlorobutadiene

What is Stockholm Convention?

- The Convention was signed in 2001 and effective from May 2004.
- The Stockholm Convention is a global treaty to protect human health and environment from POPs, which are identified chemical substances that persist in the environment, bio-accumulate in living organisms, adversely affect human health/ environment and have the property of long-range environmental transport (LRET).
- India had ratified the Stockholm Convention on January 13, 2006 as per Article 25(4).
 - It enabled the country to keep itself in a **default "opt-out" position** such that amendments in various Annexes of the convention cannot be enforced on it unless an instrument of ratification/ acceptance/ approval or accession is explicitly deposited with UN depositary.

INVOLUNTARY NARCO TESTS AN INTRUSION INTO A PERSON'S MENTAL PRIVACY: SUPREME COURT

• CONTEXT:

- Involuntary administration of narco or lie detector tests is an "intrusion" into a person's "mental privacy," a Supreme Court judgment of 2010 has held.
- The judgment is significant amid reports that the Uttar Pradesh government wants to subject the Hathras rape and murder victim's family members to these tests.

• ABOUT:

- What are polygraph and narcoanalysis tests?
- **A polygraph test** is based on the assumption that physiological responses that are triggered when a person is lying are different from what they would be otherwise.
 - Instruments like cardio-cuffs or sensitive electrodes are attached to the person, and variables such as blood pressure, pulse, respiration, change in sweat gland activity, blood flow, etc., are measured as questions are put to them.
 - A numerical value is assigned to each response to conclude whether the person is telling the truth, is deceiving, or is uncertain.
- Narcoanalysis, by contrast, involves the injection of a drug, sodium pentothal, which
 induces a hypnotic or sedated state in which the subject's imagination is neutralised,
 and they are expected to divulge information that is true.
 - The drug, referred to as "truth serum" in this context, was used in larger doses as anaesthesia during surgery, and is said to have been used during World War II for intelligence operations.

Are they scientifically successful?

 However, neither method has been proven scientifically to have a 100% success rate, and remain contentious in the medical field as well.



Supreme Court's views

- In 2010, a 3- judge bench headed by former CJI KG Balakrishnan ruled,
 - The consequences of such tests on "individuals from weaker sections of society who are unaware of their fundamental rights and unable to afford legal advice" can be devastating.
 - It may involve future abuse, harassment and surveillance, even leakage of the video material to the Press for a "trial by media."
 - Such tests are an affront to human dignity and liberty, and have long-lasting effects.
 - An individual's decision to make a statement is the product of a private choice and there should be no scope for any other individual to interfere with such autonomy.
- Similarly in September 2017, the Supreme Court passed another ruling which held that "No accused can demand a Narco test to prove their innocence."

NEW RULES FOR POSTAL BALLOT

• **CONTEXT:** In order to make the procedure to opt for postal ballot more convenient for those above 80 years of age and people with disabilities, the Election Commission (EC) has come out with a set of new instructions.

• ABOUT: What are the new instructions?

- The form required to opt for the postal ballot would be delivered by the booth level officer under his polling station, at the residence of-
 - all those above 80 years of age
 - people with disabilities
- It would be up to these two category of voters to opt for postal ballot
- If he/she opts for postal ballot, then the booth level officer will collect the **filled-in form 12-D** from the house of the elector within five days of the notification and deposit it with the returning officer forthwith.

What is postal voting?

- A restricted set of voters can exercise postal voting.
- Through this facility, a voter can cast her vote remotely by recording her preference on the ballot paper and sending it back to the election officer before counting.

Who can avail this facility?

- Members of the armed forces like the Army, Navy and Air Force, members of the armed police force of a state (serving outside the state), government employees posted outside India and their spouses are entitled to vote only by post.
- In other words, they can't vote in person.
- Special voters such as the President of India, Vice President, Governors, Union Cabinet ministers, Speaker of the House and government officers on poll duty have the option to vote by post. But they have to apply through a prescribed form to avail this facility.
- Voters under **preventive detention** can also vote only by post.



Absentee Voters

- Recently, the Law Ministry, at the Election Commission's behest, introduced a new category of 'absentee voters', who can now also opt for postal voting.
- These are voters employed in essential services and unable to cast their vote due to their service conditions.
- Currently, officials of the Delhi Metro Rail Corporation, Northern Railway (Passenger and Freight) Services and media persons are notified as absentee voters.

SHAHEEN BAGH CASE: PUBLIC SPACES CANNOT BE OCCUPIED INDEFINITELY, SAYS SC

• **CONTEXT:** Disposing a clutch of petitions in connection with the Shaheen Bagh sit-in protest, the Supreme Court said that public places cannot be occupied 'indefinitely' and protests must be allowed only in designated areas.

BACKGROUND: Right to Protest in India

- The right to protest, to publicly question and force the government to answer, is a fundamental political right of the people that flows directly from a democratic reading of Article 19.
- The right to peaceful protest is bestowed to Indian citizens by our Constitution.
- It is part of the freedom of speech and expression, which is a fundamental right under Article 19(1)(a).
 - Article 19(1)(a) guarantees the freedom of speech and expression.
 - Article 19(1)(b) states about the right to assemble peaceably and without arms.
 - Article 19(2) imposes reasonable restrictions on the right to assemble peaceably and without arms and to freedom of speech and expression and none of these rights are absolute in nature.
 - These reasonable restrictions are imposed in the interests of the sovereignty & integrity of India, the security of the State, friendly relations with foreign States, public order, decency or morality or in relation to contempt of court, defamation or incitement to an offence.
- On September 21, the bench reserved its verdict after observing that the right to protest has to be balanced with the right of the people to use a public road.

Shaheen Bagh sit-in protest

- On March 23, the Shaheen Bagh sit-in protest against the citizenship law was cleared by Delhi police after curbs were imposed on assembly and movement of people in wake of the coronavirus pandemic.
- The protest had been on for more than 100 days. It began on December 15 in Southeast Delhi, with at least 300 women at the forefront of it.
- It sparked many similar demonstrations across the country.
- The protest saw several elderly women, some in their 80s, participate daily.



Legal Provisions

- The legal provisions and avenue available to police for handling agitations, protests, and unlawful assemblies are covered by-
 - the Code of Criminal Procedure (CrPC), 1973
 - the Indian Penal Code (IPC), 1860
 - the Police Act, 1861

What has the apex court observed?

- The apex court observed it is the duty of the administration to remove such road **blockades.** Unfortunately no action by administration and hence court's intervention in the matter.
- A bench comprising Justices SK Kaul, Krishna Murari and Hrishikesh Roy said:

"Public places cannot be occupied indefinitely. Dissent and democracy go hand in hand but protests must be carried out in designated area... Such kind of occupation of public place for protests is not acceptable."

CHINA PITCHES FOR CLOSER TIES WITH BANGLADESH

• **CONTEXT:** Xi Jinping's recent call for China and Bangladesh to jointly promote the multi-billion Belt and Road Initiative has only served to heighten India's concerns about the initiative.

• ABOUT: What is BRI?

- The BRI seeks to build rail, maritime and road links from Asia to Europe and Africa in a revival of ancient Silk Road trading routes.
- It is among Xi Jinping's top priority initiatives and aims firm up China's global influence.
- Besides Pakistan, where China initiated over USD 60 billion as part of the China Pakistan Economic Corridor (CPEC), China has stepped up its huge infrastructure investments in Bangladesh, Nepal, Sri Lanka and the Maldives, sparking rising concerns about its growing influence in India's immediate neighbourhood.

Why India should be worried?

- With India's ties with its neighbours even including Nepal having been strained in the recent past, the prospect of Dhaka drawing closer to China is a worrying one.
- Bangladesh became a part of the Belt and Road Initiative in 2016 and has seen its ties with Beijing grow exponentially in recent years.
- These are developments that India would be tracking closely for their ramifications in the neighbourhood.

Assessing the strategies

- Although Bangladesh has broadly had warm relations with India, New Delhi has good reason to view the involvement of Dhaka in the BRI with concern.
- As of now, none of the projects that China is executing in Bangladesh have strategic implications.
- However, India would need to closely track present as well as future projects under the BRI in Bangladesh in order to secure its strategic interests.
- Delay in bilateral negotiations between India and Bangladesh also presents the danger of alienating the latter country.

- Among the issues which have seen such a delay is the water-sharing deal on the Teesta river. The Bangladesh government is now considering a proposal from China on the management and restoration of the Teesta river.
- The Quad which consists of India, Japan, Australia and the US also presents an opportunity to counter China's rising influence through BRI.
- As China forges closer ties with Bangladesh through the BRI, India needs to work both
 on maintaining good ties with Dhaka and also countering the influence of the initiative
 through strategic alliances.

India's concerns on BRI

- The BRI has been a major bone of contention between India and China as one portion of the corridor passes through Pakistan-occupied Kashmir.
- India has consistently been critical of the BRI and has refused to join it. In 2018, India was the only country in the eight-nation Shanghai Cooperation Organisation grouping which opposed the initiative.

Which countries are not in favour of the project?

- The initiative has, however, attracted allegations, especially from the US, of debtdiplomacy after Sri Lanka handed over its Hambantota Port to a state-run Chinese firm in 2017 for a 99 years' lease in a debt swap amounting to \$1.2 billion.
- Malaysia has also deferred several projects under the BRI, citing cost revaluation.

INDIA TEST-FIRES NEW VERSION OF NUCLEAR CAPABLE SHAURYA MISSILE

• CONTEXT: India successfully test-fired indigenously developed hypersonic nuclear-capable Shaurya missile, an advanced version of Submarine Launched Ballistic Missile (SLBM) K-15 (B-05).

• ABOUT:

- 'Shaurya', which is the land variant of India's K-15 missile, has a strike range of 700 km to 1000 km and is capable of carrying payloads of 200 kg t 1000 kg.
- The missile can be stored in a composite canister.
- The missile is less vulnerable to anti-ballistic missile defence systems due to its high manoeuvrability.
- The surface-to-surface tactical missile is 10 metres long, 74 cm in diameter and weighs6.2 tonnes.
- Its two stages use solid propellants.
- Launching platform: The missile can be launched from silos and canisters mounted on a truck and fixed on the ground, they said adding that it can be easily moved around. A truck itself can become a launching platform.

The K Family of missiles

 The K family of missiles are primarily Submarine Launched Ballistic Missiles (SLBMs), which have been indigenously developed by DRDO and are named after Dr Kalam.



- The development of these naval platform launched missiles began in the late 1990s as a step towards completing **India's nuclear triad** the capability of launching nuclear weapons from land, sea and air based assets.
- Because these missiles are to be launched from submarines, they are lighter, smaller and stealthier than their land-based counterparts, the Agni series of missiles which are medium and intercontinental range nuclear capable ballistic missiles.
- While K family are primarily submarine-fired missiles to be fired from India's Arihant class nuclear powered platforms, the land and air variants of some of its members have also been developed by the DRDO.

India towards self-reliance

- Recently, India also successfully testfired the BrahMos supersonic cruise missile which can hit targets at over 400 km strike range which is at least more than 100 kms from the previous capability of the missile.
- The Defence Research and Development Organisation (DRDO) has been working towards completing total self-reliance in the field of strategic missiles and has enhanced its efforts further under the Aatmanirbhar Bharat call by Prime Minister Narendra Modi earlier this year.

Significance

- The new version of the missile will be inducted in the strategic forces to complement one of the existing missiles in the same class. The missile would be lighter and easier to operate in comparison with the existing missile.
- The successful flight-test of Shaurya missile extended range version of surface-tosurface supersonic cruise missile BrahMos is seen by defence experts as major steps in enhancing the country's indigenous contents.
- The development of these capabilities is important in light of India's relations with the two neighbours China and Pakistan.

SUPERSONIC MISSILE ASSISTED RELEASE OF TORPEDO (SMART) SYSTEM

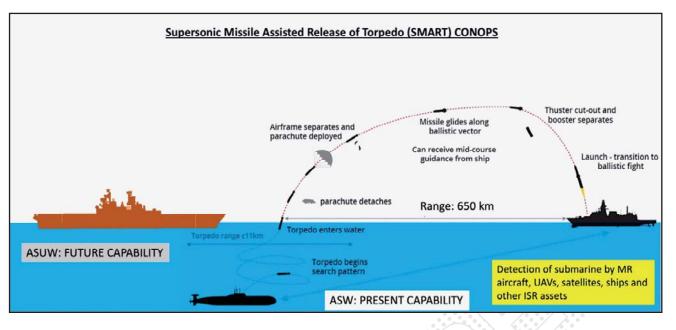
• CONTEXT:

- A successful flight test of the Supersonic Missile Assisted Release of Torpedo (SMART) system was conducted from Wheeler Island, off the coast of Odisha.
- ABOUT:
- SMART is a missile-assisted release of lightweight anti-submarine torpedo system for anti-submarine warfare (ASW) operations far beyond torpedo range.
- SMART is a hybrid missile that incorporates technologies of two different weapon systems making it faster and stealthier.
- With this, India has got an anti-submarine weapon having much higher range.
- While the long range torpedo available in the world is around 50 km and rocket-assisted torpedoes can strike at a range of 150 km, the SMART will have a range of over 600 km.

Significance of the System

• The development of the system has been crucial in capacity building of naval platforms to strike beyond the torpedo range.





- The system will be a significant addition to India's anti-submarine warfare capabilities and the test is a key step towards its deployment.
- This launch and demonstration is significant in establishing anti-submarine warfare capabilities.







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