

CURRENT AFFAIRS

WEEKLY

WEEK: 5
JULY
2021

MAINS

GS-I

Tipu Sultan and unending controversies

GS-II

Secrecy of casting vote is necessary: Supreme Court

GS-III

RBI to introduce Central Bank Digital Currency: deputy governor

GS-III

Surveillance reform: The need of Hour

GS-IV

Ethics of Deepfake and Synthetic Media

PRELIMS

GEOGRAPHY ■ Moon 'Wobbling' and its impact on rising tides

POLITY & GOVERNANCE ■ FATF halted the evaluation of India's anti-money laundering norms

■ Reservation of Jobs for Transgender Persons in Karnataka

■ Sedition law and its challenges

ECONOMY ■ Insolvency and Bankruptcy Board of India Regulations, 2016, amended by IBBI

■ Public Private Partnership for the BharatNet Project

SCIENCE & TECHNOLOGY ■ Akash-NG-Surface-to-air missile, successfully flight-tested by DRDO

■ Draft Drone Rules, 2021 released by Ministry of Civil Aviation

■ First recorded death due to H5N1 avian influenza

■ Launch of Artificial Intelligence-powered grievance management application

GS SCORE

An Institute for Civil Services

www.iasscore.in

— 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- 5 (JULY, 2021)

CONTENTS

Section - A: MAINS CURRENT AFFAIRS			
Area of GS		Topics in News	Page No.
GS I	HISTORY	• Tipu Sultan and unending controversies	02
GS II	POLITY & GOVERNANCE	• Secrecy of casting vote is necessary: Supreme Court	04
GS III	ECONOMY	• RBI to introduce Central Bank Digital Currency: deputy governor	07
	SCIENCE & TECHNOLOGY	• Surveillance reform: The need of Hour	09
GS IV	ETHICS	• Ethics of Deepfake and Synthetic Media	11

Section - B: PRELIMS CURRENT AFFAIRS			
Area of GS		Topics in News	Page No.
GS I	GEOGRAPHY	• Moon 'Wobbling' and its impact on rising tides	15
GS II	POLITY & GOVERNANCE	• FATF halted the evaluation of India's anti-money laundering norms	16
		• Reservation of Jobs for Transgender Persons in Karnataka	16
		• Sedition law and its challenges	18
GS III	ECONOMY	• Insolvency and Bankruptcy Board of India Regulations, 2016, amended by IBBI	18
		• Public Private Partnership for the BharatNet Project	20
	SCIENCE & TECHNOLOGY	• Akash-NG-Surface-to-air missile, successfully flight-tested by DRDO	21
		• Draft Drone Rules, 2021 released by Ministry of Civil Aviation	22
		• First recorded death due to H5N1 avian influenza	23
		• Launch of Artificial Intelligence-powered grievance management application	24

IAS 2022
GS FOUNDATION
1 Year & 2 Year PROGRAMME



18 AUGUST
2021

GS MAINS
ADANCE

A Solution for 1250 Marks



20 AUGUST, 2021

PATHWAYS

for UNDER GRADUATES

3 & 2 Year IAS FOUNDATION
PROGRAMME



18 AUGUST, 2021

OPTIONAL FOUNDATION 2022

POLITICAL SCIENCE
FOUNDATION 2022

By:
DR. PIYUSH CHAUBEY



18 AUGUST

PUBLIC ADMINISTRATION
FOUNDATION 2022

By:
ASHUTOSH PANDEY



05 AUGUST

HISTORY
FOUNDATION 2022

By:
PIYUSH KUMAR



07 AUGUST

GEOGRAPHY
FOUNDATION 2022

By:
PRINCE MISHRA



19 AUGUST

ANTHROPOLOGY
FOUNDATION 2022

By:
DR. SUDHIR KUMAR



05 AUGUST

📍 1B, 2nd Floor, Pusa Road Karol Bagh, New Delhi-110005, (Adjacent to Karol Bagh Metro Gate No. 8)

Visit:  www.iasscore.in

 **8448496262**

SECTION: A

(MAINS)

CURRENT AFFAIRS

TIPU SULTAN AND UNENDING CONTROVERSIES

CONTEXT

Tipu Sultan is now the centre of controversy in Maharashtra over a proposal of naming a two acres garden after him.

◎ BACKGROUND

- In January, 2021 a corporator from Govandi wrote a letter to the Market and Garden Committee suggesting that a newly developed garden spread over two acres be named after Tipu Sultan as he was a "freedom fighter" and had fought against the **British East India Company**.
- The demand was accepted by the BMC administration in June and sent to the Market and Garden Committee for approval.

◎ ANALYSIS

Early life of Tipu Sultan

- Tipu Sultan was the son of Haider Ali Khan.
 - ▶ Haider Ali Khan wrested control of **Mysore** from the **Dalwais**, or Commanders-in-Chief, who themselves had already usurped all effective power from the previous **Wodeyar king, Chikka Krishna Raj XI**.
- Tipu Sultan was born on 01 December 1751 at Devanahalli in present-day **Bangalore Rural district**.
- He was named "Tipu Sultan" after the saint **Tipu Mastan Aulia** of **Arcot**.
- At age 15, he accompanied his father against the British in the **First Mysore War** in 1766. He commanded a corps of cavalry in the invasion of **Carnatic** in 1767 at age 16.
- He also distinguished himself in the **First Anglo-Maratha War** of 1775–1779.
- From the age of 17, Tipu was given independent charge of important diplomatic and military missions. He was his father's right arm in the wars from which Hyder Ali emerged as the most powerful ruler of southern India.

Tipu Sultan and British Raj

- During the **First and Second Anglo-Mysore Wars**, Haider Ali had brought the British to their knees.
- Tipu would come to inherit a formidable burden: his father died during the **Second Mysore War** that he successfully concluded, but two more wars with the British followed in the **Third and Fourth Anglo-Mysore Wars**.

- In 1792, at the end of the **Third War**, Tipu was corralled into ceding nearly half of his territory to the British and its Indian allies; was placed under a crippling debt; and gave two sons as hostages to the British until the debt was paid.
- He was defeated and killed only in the **Siege of Seringapatam on 4 May 1799**.

How different sectors were ruled under Tipu Sultan?

• Economy

- ▶ The peak of Mysore's economic power was under Tipu Sultan in the late 18th century. Under his reign, Mysore overtook Bengal Subah as India's dominant economic power, with highly productive agriculture and textile manufacturing.
- ▶ Tipu Sultan laid the foundation for the construction of the Kannambadi dam (present-day Krishna Raja Sagara or KRS dam) on the Kaveri river
- ▶ The Mysore silk industry was first initiated during the reign of Tipu Sultan. He sent an expert to Bengal Subah to study silk cultivation and processing, after which Mysore began developing polyvoltine silk.
- ▶ He encouraged the establishment of state-run factories at Bangalore and Seringapatam, Bednore and Chitaldurg, Chennapatna and Chickballapur, for the production of everything from cotton and silk cloth to cannons and sugar, from paper and glass to guns and muskets

• Foreign relations

- ▶ Tipu Sultan was the master of his own diplomacy with foreign nations, in his quest to rid India of the East India Company and to ensure the international strength of France
- ▶ After facing substantial threats from the Marathas, Tipu Sultan began to correspond with Zaman Shah Durrani, the ruler of the Afghan Durrani Empire, so they could defeat the British and Marathas

• Judicial system

- ▶ Tipu Sultan appoints Judges from both communities for Hindu and Muslim subjects. Qadi for Muslims and Pandit for

Hindu in each province. Upper courts also having similar system

◉ **Mysorean rockets**

- He deployed as many as 1,200 specialised troops in his army to operate rocket launchers. The rockets deployed by Tipu during the Battle of Pollilur were much more advanced than those the British East India Company had previously seen, chiefly because of the use of iron tubes for holding the propellant; this enabled higher thrust and longer range for the missiles

◉ **Navy**

- In 1786 Tipu Sultan, again following the lead of his father, decided to build a navy consisting of 20 battleships of 72 cannons and 20 frigates of 65 cannons. In the year 1790 he appointed Kamaluddin as his Mir Bahar and established massive dockyards at Jamalabad and Majidabad

- Tipu Sultan ordered that the ships have copper-bottoms, an idea that increased the longevity of the ships and was introduced to Tipu by Admiral Suffren.

◎ **CONCLUSION**

Tippu was an able general and administrator, and, though a Muslim, he retained the loyalty of his Hindu subjects. He proved cruel to his enemies and lacked the judgment of his father, however.

Despite preserving the image of a devout Muslim throughout his life, in post-colonial Indian subcontinent he is applauded not only as a ruler who fought against British colonialism, but also for his progressive attitude towards religious diversity, although he has also been criticised for the repression of Hindus of Malabar and Christians of Mangalore for both religious and political reasons

SECRECY OF CASTING VOTE IS NECESSARY: SUPREME COURT

CONTEXT

In a recent Judgment, the Supreme Court observed that any attempt of 'booth capturing and/or bogus voting' should be dealt with iron hands as such activity ultimately affects the 'rule of law and democracy'.

◎ BACKGROUND

- SC gave the judgment while upholding the conviction of eight persons involved in rioting and causing injuries with firearms outside a polling station in what is now Jharkhand ahead of the 1989 Lok Sabha elections.
 - The eight have been found guilty of beating a Bharatiya Janata Party worker after he refused to hand over voter slips to them.
 - They also fired and caused injuries to bystanders.
- In this case, the accused are convicted for the offences under Section 323 and 147 IPC and are sentenced to undergo six months simple imprisonment.

◎ ANALYSIS

Key-points highlighted by the SC

The Bench

- The bench comprised Justices DY Chandrachud and MR Shah.

- Election is a mechanism that represents the will of the people and democracy and free election have been said to be part of the basic structure of the Constitution.
- The freedom of voting is a part of the freedom of expression and secrecy of casting vote is necessary for strengthening democracy.
- The essence of the electoral system should be to ensure freedom of voters to exercise their free choice.
- Nobody can be permitted to dilute the right to a free and fair election.

The 2013 judgment in **Peoples Union of Civil Liberties case** held that freedom of voting is a part of the fundamental right of freedom of expression.

Booth capturing

- In the context of Indian Election, according to former **CEC S.P. Sen Kumar**, booth capturing rigging refers to:
 - "When people speak about rigging during the electoral process, that generally means that a corrupt practice has been committed in a constituency in a systematic and pre planned manner with the aid and consent of the ruling party, either acting individually or aided by the Election Commission itself. Rigging is used in the used in the press by the politicians."

Booth capturing exists in various forms.

- Bogus voting**, the most common form is more widespread in urban areas; in rural areas familiarity instills fear of being caught red handed in the act.
 - The outlook of allowing agents of the candidates at polling booths is to keep an eye on bogus voting and it is nearly impossible to identify voters in elections held in urban areas.

Case Study

- In Nagaland, for example, voting by school students is a frequent occurrence during elections.
 - Teachers are the instigators and they enrol all their students as voters and register their votes on the polling day.
 - This is a major reason behind Nagaland's massive electorate which stands at 75% against the national average of just over 50%.

- Double enrolment** is also very frequent during elections in India. People having their residence in rural areas but their place of work in urban areas register themselves in both the places.

Case Study

- Printing unsanctioned ballot papers and using them in elections amounts to Rigging. Such a contention was raised during the 1983 Jammu and Kashmir Assembly polls.

- Snatching ballot boxes in transit is a common instance in Northern states of India despite the

presence of the government officials and the agents of the candidates.

How Elections are conducted in India?

- With a 'Federal Government', the Republic of India held elections to choose officials at local, state and federal levels in this country.
- **Lok Sabha (Secret Ballot):** The Lok Sabha members are chosen through general elections that take place every 5 years.
 - Voting takes place through secret ballot for the Lok Sabha and State assemblies. It is most important and prerequisite to the public to express their will freely and fairly.
- **Rajya Sabha (Open Ballot):** The Rajya Sabha members, on the other hand, are chosen by all the elected members of the state legislative assemblies and Union Territory Electoral College through the open ballot system.
- **Conducting authority:** The Election Commission of India conducts the elections.
- **Method:** Elections are held by Universal adult franchise.
 - Who is a citizen of India and not less than 18 years of age can register as a voter in the electoral roll of India.
 - There is no discrimination on the ground of religion, race, caste, sex or any of them.
- In India multiparty system is functioning.
- Elections are determined by the relative majority of valid votes polled.

Election Commission of India

- Election Commission of India is a Constitutional Body created under Article 324 of the Constitution of India.
- It was set up on **25th January 1950**.
- Election Commission of India conducts elections to the offices of President & Vice President of India, both Houses of Parliament (Lok Sabha & Rajya Sabha), State Legislative Assemblies, and State Legislative Councils.
- The election machinery is headed by Chief Electoral Officer at the State/UT level, and by District Election Officer at the District level.
- The President appoints the Chief Election Commissioner and Election Commissioners. They have a tenure of six-year, or up to the age of 65 years, whichever is earlier.
 - They enjoy the same status as the judges of the Supreme Court of India. The **Chief Election Commissioner** can be removed from office only through impeachment by Parliament.

- **Election Commissioners** including the **Chief Election Commissioner** have equal say in the decision making of the Commission.

What hinder the process of fair elections?

- Corrupt practices related to elections (bribery)
- Undue influence (use of physical force and booth capturing)
- Inciting hatred and violence amongst people of different communities
- Criminalization of politics
- Influencing public officials
- Defection politics
- Demanding votes on the basis of religion and caste
- Misuse of Election Machinery

Important initiatives for free and fair elections

Various initiatives have been taken by the Parliament by amending the laws for a free and fair election in India. There have been many changes made from time to time on our electoral system, but there were no significant and substantial reforms brought about. The reforms are as follows:

- Reports of Dinesh Goswami Committee on Electoral Reforms (1990)
- Indrajit Gupta Committee on State Funding of Elections (1998)
- Law Commission's Report on Reform of the Electoral Laws (1999)
- NCRWC (National Commission to Review the Working of the Constitution)

Constitutional provisions

- The Constitution of India **promises free and fair elections to the citizens of the country**.
 - It empowers the Election Commission to superintend, control and direct the elections in India.
- **Part XV** of the Constitution of India lays down the '**right to vote**' promised to the citizens and other provisions related to elections in India.
- In response to that, the Parliament enacted the **Representation of the People Act, 1950** and the **Representation of the People Act, 1951** to regulate the conduct of elections.

What measures are required?

- **Effective implementation:** Initiatives go in vain without implementation. Thus, there is an urgent

need for effective implementation of the existing laws and measures.

- **Strong SC's intervention:** The Supreme Court should take all necessary steps to strengthen democracy in the country. The legislature and executive have been complaining about the Supreme Court's intervention on their domain, but it becomes imperative in such kind of unwanted situation.
- **Electoral reforms:** The long-pending electoral reforms need to be addressed related to stopping the blatant abuse of money power, raising the

ceiling on election expenditure for political parties, ensuring a level playing field, and making paid news a criminal and electoral offense.

Final thoughts

Nations which are 'democratically elected' postulate free and impartial elections and India being a colossal democracy demands such process.

The free and fair Election process is a foundation of a healthy democracy. The Democratic future of India depends upon healthy political environment, and to protect it free and fair election process is inevitable.

RBI TO INTRODUCE CENTRAL BANK DIGITAL CURRENCY: DEPUTY GOVERNOR

CONTEXT

As per a recent update, the Reserve Bank of India (RBI) is planning to introduce its own version of Central Bank Digital Currency (CBDC). The Currency is to be introduced in a phased manner after proper assessment on issues such as:

- how it could hamper the deposit mobilization abilities of banks
- its potential effect on the conduct of the monetary policy

◎ BACKGROUND

- The idea of a digital rupee has been explored in India at various times but has not gained much traction.
- In the last few years, the issue of CBDC has crept up with the advent of private virtual currencies, such as bitcoins.

- **RBI Report:** In its 2017-18 annual report, the Reserve Bank of India said that "an inter-departmental group has been constituted by the Reserve Bank to study and provide guidance on the desirability and feasibility to introduce a central bank digital currency."
- **Panel recommendation:** In 2019, a panel headed by then Finance Secretary Subhash Chandra Garg recommended a digital rupee, while simultaneously suggesting a crackdown on private cryptocurrencies.

◎ ANALYSIS

Understanding the CBDC Structure

- Central Bank Digital Currency (CBDC) is nothing but a digital version of so-called "fiat money".
- Fiat money is the regular currency a country uses, as established and regulated by its government.
- CBDC is a digital payment instrument that is denominated in a national currency.
- **Issued by:** Central bank.

Today, India is the leader in the world in terms of digital payments systems, growing at 55 per cent compounded annual growth rate for the past five years.

How it can be compared to cryptocurrency?

- **Similarity:** CBDC is similar to cryptocurrencies as

- ▶ It uses blockchain technology as its core means of representation.
- ▶ It's digital.
- **Difference:** It differs from cryptocurrency because unlike the latter, the former is issued, centralized and regulated by the monetary authority (in most cases governments) of the issuing country.

How is it different from private virtual currency?

- The value of private virtual currencies is based on its ownership, distribution and trading on exchanges
- A CBDC's intrinsic value is equivalent to any other form of money issued by the central bank.

Important points to be discussed by RBI

In particular, the Indian central bank would evaluate the following scope of the digital currency:

- **Usage:** Whether they should be used in retail payments or also in wholesale payments.
- **Technology:** The underlying technology, whether it should be a distributed ledger or a centralized ledger, is also being evaluated. Whether the underlying technology should vary based on use cases is being debated at the central bank.
- **Mechanism:** Besides, other modalities such as token-based or account-based validation mechanism, distribution architecture (direct issuance by the RBI or through banks).
- **Anonymity:** What would be the degree of anonymity granted for such CBDCs are also being determined at the RBI.

Significance of the transition

- **Cost effective:** With the adoption, large cash usage can be replaced by CBDCs, the cost of printing, transporting, storing, and distributing currency can be reduced.
- **Multiple benefits:** It would provide significant benefits, such as reduced dependency on cash,

higher seigniorage due to lower transaction costs, reduced settlement risk.

- **Reduced disintermediation:** CBDCs can cause a reduction in the transaction demand for bank deposits and will reduce the intra-day liquidity for settlement of transactions. They could also cause a shift away from bank deposits.
- **Safety:** In an environment of virtual currencies, CBDCs are necessary to protect the general public.

Assessing the challenges

- **Lack of proper jurisdiction:** While these private currencies have their own benefits, they are not backed by any government and therefore do not follow any proper jurisdiction.
- **Threat to established currency:** The wide adoption of these currencies threatens to upend the established model of fiat currencies issued by countries within a border.
- **Cyber security:** The risk of cyber crime will continue to pose challenges in the case of CBDCs.
- **Social and economic consequences:** In case, if the digital currencies gain recognition, national currencies with limited convertibility are likely to

come under threat. Adding such private currencies can therefore have potentially damaging social and economic consequences.

Major countries leading adoption of CBDC

- As of now, no country has officially adopted the CBDC, but many nations such as China, Russia, Japan, United States, China, and the UK are planning on launching CBDC.
- They have all launched the initial test program and research projects to test the credibility of CBDC programs.
 - England was among the first countries to propose this idea. China joined soon after.
 - Russia is on the verge of making its own 'crypto rubel.'

Wrapping Up

Introduction of CBDC will lead to a more robust, efficient, trusted, regulated and legal tender-based payments option. However, as of now, the central bank is exploring all the pros and cons of the introduction of CBDCs. RBI would also draw upon the lessons from other countries that are in different stages of introducing such a fiat currency.

SURVEILLANCE REFORM: THE NEED OF HOUR

CONTEXT

Recently a report named 'Pegasus Project' was published that says that over "300 verified Indian mobile telephone numbers were targeted using spyware made by the Israeli firm, NSO Group.

Surveillance in India

- In India the government can surveillance through existing laws that offer impunity for surveillance. However, there are several issues associated with the surveillance regime.
- The Indian surveillance government relies on existing provisions under **the Indian Telegraph Act of 1885** and the **Information Technology (IT) Act of 2000**.
- These provisions are problematic and give the government complete anonymity regarding its capture and monitoring functions.
- While the provisions of the **Telegraph Act** relate to telephone conversations, IT Act deals with all communications made using a computer application.
- **Section 69 of the IT Act** and the **Restrictions Act of 2009** does not work better than the Telegraph Act, and it provides even the weakest protection against those tested.
- There is no provision, however, that allows the government to hack into anyone's phones as hacking of computer equipment, including cell phones and applications, is a criminal offense under the IT Act.
- However, self-monitoring, whether under the law or outside of it, is a gross violation of the fundamental rights of citizens.

What is Pegasus?

- Pegasus is a spyware that works by sending an exploit link.
- If the target user clicks on the link of spyware, the malware or the code that allows the surveillance is installed on the user's phone.
- Once the Pegasus is installed, the attacker has complete access to the target's phone.
- The first case on Pegasus's spyware operations emerged in 2016, when Ahmed Mansoor, a human rights activist in the UAE, was targeted with an SMS link on his iPhone 6.
- Apple responded by making out an update to "patch" or fix the issue.
- Pegasus delivers "a chain of zero-day exploits to penetrate the security features on the phone and installs Pegasus without the user's knowledge or permission.

About the Pegasus Malware Attack

- The surveillance was carried out on users in 20 countries, "between in and around April 2019 and May 2019".
- The surveillance was carried out by using a spyware tool called **Pegasus** that was developed by an **Israeli firm, the NSO Group**.
- Only a missed call on the app was all that was needed to install the software on the device.
- No clicking on a misleading link was required.

"Zero-day exploit"

- **It is a completely unknown vulnerability. Even the software manufacturer is not aware of it, and there is, thus, no patch or fix available for it.**

Impact

- **Threat to Freedom of the Press:** Monitoring affects media freedom. In 2019, similar allegations were made about Pegasus' use of journalists and human rights activists.
 - ▶ The World Press Freedom Index produced by Reporters Without Borders ranked India in 142 out of 180 countries by 2021.
 - ▶ Privacy and free speech are what enable good reporting. They protect journalists from the threat of private and public sanctions through official reporting.
- **Contrary to the Right to Privacy:** The very existence of a security system affects the right to privacy and the exercise of freedom of speech and personal freedom under Articles 19 and 21 of the Constitution, respectively.
 - ▶ Fear of citizens knowing that their email is being read by the government could affect their ability to express, accept and discuss unfamiliar ideas.
 - ▶ In the absence of secrecy, the safety of journalists, especially those whose work criticizes the government, and the personal safety of their sources are at stake.
- **State of Authorization:** Employment promotes the spread of dictatorship in the public service because it allows managers to exercise an unequal amount of power in the citizenry and have an impact on their lives.

- **Against Procedure:** Employment, when fully implemented by an authority, reduces Articles 32 and 226 of the Constitution as is the case in private.
- Therefore, the affected person cannot show a violation of their rights. This violates not only the purposes of proper procedure and separation of powers but also violates the requirement of process protection as mandated in **K. Puttaswamy v. Union of India (2017)**.

Issues with Surveillance system

- Monitoring itself, whether under the law or outside of it, is a gross violation of the fundamental rights of citizens.
 - **Violations of freedom of speech:** The existence of a system of surveillance affects the right to privacy and the exercise of freedom of speech and personal freedom under **Articles 19** and **21** of the Constitution, respectively.
 - It prevents people from learning and exchanging strange, controversial or provocative ideas.
 - **There is no element of legal scrutiny:** There is also no space for the intended person to go to court of law before or during or after or acts of observation as the system itself is confidential.
 - **No oversight:** In the absence of parliamentary or legislative oversight, electronic surveillance gives the council the power to influence both subject matter and all categories of people, resulting in a negative impact on free speech.
 - **Opposition to the separation of powers:** Constitutional officials such as the sitting judge of the Supreme Court have been reported to be under the control of Pegasus.
 - The acquisition of immeasurable power by a single branch of government threatens the separation of state power.
 - Existing provisions are not enough to prevent the spread of dictatorship because they allow the authorities to use an unequal amount of power.
- environmental justice, it is necessary to consider judgments.
- Only the judiciary can determine whether certain conditions of oversight are equal, whether there are other complex mechanisms in place, and balancing the need for government objectives with the rights of the people affected.
 - The need to oversee the processes of general surveillance systems, as well as the investigation into Pegasus burglary, is also important because leaked details of the target numbers contained the telephone number of a sitting High Court judge sitting, which also casts doubt on Indian independence.
 - Monitoring conversion is a need for an hour in India as a complete overhaul of the monitoring framework is outdated.
 - Not only is the existing security weakened but the proposed law relating to the protection of personal data of Indian citizens fails to address scrutiny while providing extensive relief to government officials.
 - There needs to be greater clarity in the system as in the current system, organs of state are not accountable to anyone other than government itself.
 - The current argument, therefore, is not about 'whether to be watched at all', but about 'how, when, and what kind of surveillance'.
 - If the purpose **e.g.** Protecting national security can be achieved through minor violations of fundamental rights, the government is constitutionally obliged to implement a mechanism that, in fact, involves minor violations.
 - Changes in the Indian surveillance regime should include code of conduct that looks at the ethical aspects of employment.

◎ CONCLUSION

This is also the right time across the world, there is an increasingly urgent debate about how to protect basic rights against encroachment by an aggressive and intrusive state, which wields the rhetoric of national security like a sword. The only way to solve this problem is to implement immediate and comprehensive surveillance reform.

What measures are required?

- **Administrative Justice:** In order to satisfy the principle of "proper legal process", to maintain the separation of powers effectively and to meet the requirements of procedural protection and

ETHICS OF DEEFAKE AND SYNTHETIC MEDIA

CONTEXT

The documentary “Roadrunner: A Film About Anthony Bourdain” has been recently released directed by Morgan Neville. To craft the film’s narrative, Neville drew on tens of thousands of hours of video footage and audio archives—and, for 3 particular lines detected within the film, Neville commissioned an IT-software company to make an A.I. generated version of Bourdain’s voice.

◎ BACKGROUND

- United Kingdom sports celebrity David Beckham was featured in a not for profit video for the Malaria No More.
- In the minute-long video, Beckham had made a fundraising plea in nine totally different languages.
- His mouth movements and facial gestures were manipulated as if he were speaking with multiple voices
- Such technology is termed as ‘deepfake’ and covered below the broader class of ‘synthetic media’, which prima facie seems natural and real but created using high end processing tools of machine learning and artificial intelligence.
- A deepfake/synthetic media audio-video with an intent to deceive, intimidate, misattribute, and inflict reputational harm throws many ethical challenges to the society

◎ ANALYSIS

What is deepfake or Synthetic Media?

- Deepfakes are digital falsifications of pictures, videos, and audios created exploiting an editing process that is automated through AI techniques
- Synthetic media content is different from “deep fakes,” these are “people” created by AI algorithms that manipulate faces, speech patterns, tones, and other data to produce a human entity.

Synthetic News Anchors



Qiu Hao
Xinhua

Xin Xiaomeng
Xinhua

What are the ethical issues encircling deepfake/synthetic media?

- **Threat to Individuals**
 - ▶ The terribly first use case of malicious use of deepfake was seen in inflicting emotional,

reputational, and in some cases, violence towards the individual, chiefly women.

- ▶ Pornographic deepfakes can threaten, intimidate, and inflict psychological harm on an individual
- ▶ Deepfake can depict a person indulging in antisocial behaviors and saying vile things that they never did. Those deepfakes can have severe implications on their reputation.

- **Threat to Society**

- ▶ AI-based synthetic media may accelerate the already declining trust in media. Such erosion can contribute to a culture of factual relativism, fraying the increasingly strained fabrics of civil society.
- ▶ False information about the institutions, policy, and public leaders powered by a deepfake can be exploited to spin information and manipulate belief
- ▶ Deepfakes can be used to exacerbate social division by using fake video and audio to spread disinformation about a community. There are a few examples from South Asia, in Myanmar and in India against Muslims.

- **Threat to Businesses**

- ▶ Deepfakes are used to impersonate identities of business leaders and executives to facilitate fraud.
- ▶ Deepfakes could pose unique labor and employment risks. Employees are relying increasingly on secret video and audio recordings to support their claims of harassment or mistreatment
- ▶ In such way, businesses not only stand to lose the value of defrauded funds, reputational goodwill, but they can also be subject to litigation by shareholders, investigations by regulators, and loss of access to further capital.

- **Threat to Democracy**

- ▶ A well-executed deepfake, a few days before the polling, of a leading political candidate spewing out racial epithets or indulge in an unethical act, can damage their campaign
- ▶ Deepfake can have an impact on the voters and the candidate.

- ▶ Deepfakes may also be used for misattributions, telling a lie about a candidate, or falsely amplifying their contribution, or inflicting reputational harm to a candidate.

Deepfake/Synthetic Media for the good

◉ Accessibility

- ▶ Artificial intelligence can build tools to hear, see, and soon with Artificial General Intelligence (AGI), reason with increasing accuracy. AI-Generated Synthetic media can help make the accessibility tools smarter and, in some cases, even affordable and personalizable, which can help people augment their agency and gain independence. Synthetic media can bring accessible solutions to all.

◉ Education

- ▶ Deepfake technology facilitates numerous possibilities in the education domain. Schools and teachers have been using media, audio, video in the classroom for quite some time. AI-Generated synthetic media can bring historical figures back to life for a more engaging and interactive classroom. Deepfakes can help an educator to deliver innovative lessons that are far more engaging than traditional visual and media formats.

◉ Art

- ▶ Deepfakes can be a great tool to realistically realize the primary tenant of reflection, stretching, contortion, and appropriation of real events in comedy or parody. AI-Generated synthetic media can bring phenomenal opportunities in the entertainment industry, and we see a lot of realization of the opportunity by independent creators or YouTube.

◉ Autonomy & Expression

- ▶ Synthetic media can help human rights activists and journalists to remain anonymous in dictatorial and oppressive regimes. Using technology to report out atrocities on traditional or social media can be very empowering for

citizen journalists and activists. Deepfake can be used to anonymize voice and faces to protect their privacy.

◉ Reach and Message Amplification

- ▶ Synthesia, the company behind the Beckham video, and VOCALiD, a voice startup, created tools to natively localize video and audio content for learning tools, brand marketing, audience engagement, customer service, and public messaging to broaden the reach and amplification of the message.

◉ Public Safety & Digital reconstruction

- ▶ Reconstructing the crime scene is a forensic science and art, using inductive and deductive reasoning and evidence. AI-Generated synthetic media can help reconstruct the scene with the interrelationship of spatial and temporal artifacts

◎ WAY FORWARD

3Cs can be an optimum solution to meet the present day challenges our society is faced with.

Consent

- ◉ No-one should be synthesised without consent. We propose implementing a digital consent system to streamline the process.
- ◉ For example, synthesising public figures without consent violates these ethical guidelines no matter the intention of the content.

Control

- ◉ Actors should be in control of their likeness and should have access to a record of all synthetic media content they appear in.

Collaboration

- ◉ A general willingness, within reasonable means, to engage in public discourse and education around synthetic media.

**BATCH
01**

**IAS 2022
PRELIMS TEST SERIES**

PRELIMS PRACTICE PROGRAMME

Total 65 Tests

**BATCH
STARTS**

24 JULY
2021

**BATCH
03**

MAINS TEST SERIES 2022

GS MAINS QA

- COMPLETE GS & ESSAY THROUGH TEST SERIES
- 1500+ TOPICS OF GS PAPER 1, 2, 3 & 4 COVERED

**BATCH
STARTS**

25 JULY
2021

**BATCH
05**

**IAS 2022
INTEGRATED TEST SERIES**
for Mains & Prelims

Single source for Integrated Preparation

**BATCH
STARTS**

8 AUGUST
2021

1B, 2nd Floor, Pusa Road Karol Bagh, New Delhi-110005,
(Adjacent to Karol Bagh Metro Gate No. 8)

✉ info@iasscore.in [f/gsscoreofficial](https://www.facebook.com/gsscoreofficial)

Visit: www.iasscore.in

☎ **8448496262**

SECTION: B

(PRELIMS)

CURRENT AFFAIRS

To Attempt
Weekly Current Affairs Test, Visit

www.iasscore.in

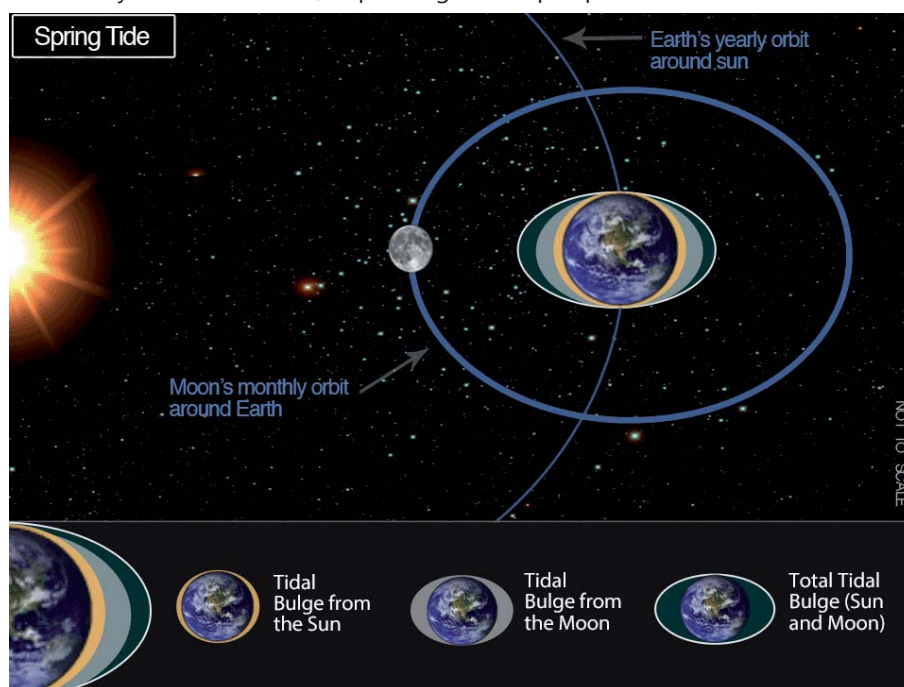
MOON 'WOBBLING' AND ITS IMPACT ON RISING TIDES

◎ CONTEXT:

According to a study published, the phenomenon of wobbling is expected to lead to more flooding on Earth in the middle of the next decade.

What is 'wobble'?

- The moon wobble is a regular swaying in the moon's orbit.
- It was first documented in 1728.
- A moon wobble is described as the fluctuations in the moon's orbit.
- The moon's orbital plane around the Earth is at an approximate 5-degree inclined to the Earth's orbital plane around the sun.
- Because of this, the path of the moon's orbit seems to fluctuate over time and completes a full cycle every 18.6 years (nodal cycle).
- It is mostly circles and ovals, depending on the perspective.



Origin of wobble

- At certain points along the cycle, the moon's gravitational pull comes at such an angle that it yanks one of the day's two high tides a little bit higher.
- High-tide flooding related to climate change is also expected to break records with increasing frequency over the next decade.

What impact does the wobble have on Earth?

- The moon wobble impacts the gravitational pull of the moon, and it indirectly influences the ebb and flow of tides here on the Earth.
- Each wobble cycle has the power to amplify and suppress the tides on the Earth.
- It is expected that the upcoming changes in the lunar cycle will pose a serious threat, as it will amplify high tides coupled with the rising sea levels.
- It is one of the many factors that can either exacerbate rising sea levels or counteract them, alongside other variables like weather and geography.

FATF HALTED THE EVALUATION OF INDIA'S ANTI-MONEY LAUNDERING NORMS

◎ CONTEXT:

Financial Action Task Force (FATF) has postponed the analysis of the effectiveness of India's anti-money laundering and countering terrorist financing regime, for the second time, because of the pandemic.

About the Financial Action Task Force (FATF)

- The Financial Action Task Force (FATF) is an inter-governmental financial watchdog.
- It develops and promotes policies to combat money laundering and financing of terrorism.
- It is consisting of 39 countries with major financial centers in Europe, North and South America, and Asia and two international organizations have proposed a set of 40 recommendations to combat money laundering.
- FATF has developed the FATF **Recommendations**, or FATF Standards, which ensure a coordinated global response to prevent organized crime, corruption, and terrorism.
- On **June 25, 2010**, India became the **34th country** member of FATF.

Key facts about the Financial Action Task Force (FATF) Review

- The FATF conducts "peer reviews of each member to assess levels of implementation of the FATF recommendations.
- It provides an in-depth description and analysis of each country's system for preventing criminal abuse of the financial system."
- The last such review of India was held in June 2010 and it is usually taken up again after 10 years.

Initiatives by the Indian government against money laundering

- Guidelines and rules under the Prevention of Money Laundering Act (PMLA), 2001
- Know Your Customer (KYC) procedures
- Fugitive Economic Offenders Act in 2018
- Anti-black money Act, 2015
- Foreign Exchange Regulation Act (FERA), 1973
- Foreign Exchange Management Act (FEMA) in 1999
- Indian Customs Act, 1962
- Smugglers and Foreign Exchange Manipulators Forfeiture of Property Act, 1975
- Foreign Contribution (Regulation) Act, 1976
- The promulgation of the Prevention of Terrorism Act (POTA), 2002
- India is a signatory to the 1988 United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (the Vienna Convention).

RESERVATION OF JOBS FOR TRANSGENDER PERSONS IN KARNATAKA

◎ CONTEXT:

T Karnataka has become the first state in India to reserve jobs in public employment for transgender persons.

About the Transgender's reservation

- The state government has amended **the Karnataka Civil Services (General Recruitment) Rules, 1977** to provide for 1% horizontal reservation for the transgenders.
- The proposed amendment to **Rule 9 Sub Rule (1D)** was inserted to provide for **1% of vacancies** which needs to be filled in any service or post by the state government from among the transgender candidates in each category of **general, Scheduled Castes, Scheduled Tribes** and in each of the **categories among the Other Backward Classes**.
- Every Appointing Authority shall provide a separate column of "Others" along with the male gender and female gender in the application for the recruitment to any category of **Group-A, B, C or D** posts for the convenience of the transgender persons.
- The **Recruitment Authority** or the **Appointing Authority** shall not discriminate a transgender person while making the selection of appointment to any category of post.

Reservation under the Indian Constitution

- Objective for reservations to the Scheduled Castes(SCs), Scheduled Tribes (STs) and Other Backward Classes (OBCs) in the services is not just to give jobs to some persons who belongs to these communities.
- It basically aims to empower them and to ensure their participation in decision making process of the State.
- Articles Related to reservation:
 - **Clauses (4) and (4A) of Article 16** of the Constitution make provisions for the reservation by the state.
 - **Article 46 provides** that the State shall promote the educational and economic interests of the weaker sections of the people, and, in particular, the Scheduled Castes and Scheduled Tribes, and shall protect them from social injustice and all forms of the exploitation.
 - **Articles 341 and 342** of the Constitution define who would be Scheduled Castes and Scheduled Tribes with respect to any State or Union Territory.
 - **Article 16** of the Constitution and also **Article 335** have direct bearing on reservation in services.

Vertical reservations

- Reservation for the Scheduled Castes, Scheduled Tribes, and for Other Backward Classes is referred to as the vertical reservation.
- It applies separately to each of the groups which are specified under the law.
- **Article 16(4)** of the Constitution contemplates the vertical reservation.

Horizontal reservations

- The horizontal reservations are provided under **Article 16(1)**.
- This reservation is provided to the persons with disabilities
- Under horizontal reservations, various groups such as ex-army personnel, displaced persons, women under **Article 15(3)** have also been benefitted.
- Horizontal reservations cut across the vertical reservations whereby reservations under a horizontal category are provided under the existing category of the vertical reservations.

SEDITION LAW AND ITS CHALLENGES

◎ CONTEXT:

Major General (retired) SG Vombatkere has challenged the constitutional validity of Section 124A of the IPC which deals with the offense of sedition. During hearing the petition, the Chief Justice of India N V Ramana observed that the "colonial law" was also used by the British to silence Mahatma Gandhi and Bal Gangadhar Tilak.

About the Sedition Law

- The sedition law is enshrined in **Section 124A** of the **Indian Penal Code (IPC)**.
- It was introduced by the British government, in 1870, to tackle dissent against colonial rule.
- According to the section 124A, the charges could be put on whoever, by words, either spoken or written, or by signs, or by visible representation, or otherwise, brings or attempts to bring into hatred or contempt, or excites or attempts to excite disaffection towards, the Government established by law in India.
- He/She shall be punished with imprisonment for life, to which a fine may be added; or, with imprisonment which may extend to three years, to which a fine may be added; or, with fine."

Sedition law introduction in India

- The law was used to suppress the writings and speeches of Indian nationalists and freedom fighters.
- The first application of the law was the trial of newspaper editor Jogendra Chandra Bose in 1891.
- Other prominent examples of the application of the law include the trials of Tilak (1897) and Gandhi (1922).
- Jawaharlal Nehru, Vinayak Damodar Savarkar, and Abul Kalam Azad were also charged with sedition.

Criticism of the sedition law

- The sedition law is challenged because it has a "chilling effect" on speech and it poses an unreasonable restriction on the fundamental right of free expression.
- Article 19 (1) (a) of the Constitution guarantees Indian citizens' freedom of speech and expression.

Earlier challenges and ruling

- In the landmark case of **1962, KedarNath versus Union of India**, the Supreme Court upheld the constitutional validity of the sedition law at the same time tried to curtail its misuse.
- The court said that criticism of the government cannot be labeled sedition unless accompanied by incitement or a call for violence.

INSOLVENCY AND BANKRUPTCY BOARD OF INDIA REGULATIONS, 2016, AMENDED BY IBBI

◎ CONTEXT:

The Insolvency and Bankruptcy Board of India (IBBI) amended the Insolvency and Bankruptcy Board of India (Insolvency Resolution Process for Corporate Persons) (Second Amendment) Regulations, 2016.

The amended provisions in the IBBI regulations

- The amendment regulations seek to enhance discipline, transparency, and accountability in corporate insolvency proceedings.

Problems	Amendments
In case of corporate debtor (CD) changed its name or registered office address before commencement of insolvency. The stakeholders may find it difficult to relate to the new name or registered office address and consequently fail to participate in the Corporate Insolvency Resolution Process (CIRP).	The amendment requires an insolvency professional (IP) conducting CIRP to disclose all former names and registered office address(es) so changed in the two years preceding the commencement of insolvency along with the current name and registered office address of the CD, in all its communications and records.
The interim resolution professional (IRP) or resolution professional (RP) may appoint any professional, including registered valuers, to assist him in the discharge of his duties in the conduct of the CIRP.	<ul style="list-style-type: none"> The amendment provides that the IRP/ RP may appoint a professional, other than registered valuers if he thinks that the services of such professionals are required and such services are not available with the CD. Such appointments shall be made on an arm's length basis following an objective and transparent process. The invoice for the fee shall be raised in the name of the professional and be paid into his bank account.
The value lost in transactions increasing the possibility of re-organisation of the CD through a resolution plan.	<ul style="list-style-type: none"> The RP is duty-bound to find out if a CD has been subject to avoidance transactions, namely, preferential transactions, undervalued transactions, extortionate credit transactions, fraudulent trading and wrongful trading, and file applications with the Adjudicating Authority seeking appropriate relief.

Insolvency and Bankruptcy Code, 2016 (IBC)

- The **Insolvency and Bankruptcy Code, 2016 (IBC)** is the bankruptcy law of India which seeks to consolidate the existing framework by creating a single law for insolvency and bankruptcy.
- The bankruptcy code is a one stop solution for resolving insolvencies which previously was a long process that did not offer an economically viable arrangement.
- The code aims to protect the interests of small investors and make the process of doing business less cumbersome.
- The Code establishes the Insolvency and Bankruptcy Board of India, to oversee the insolvency proceedings in the country and regulate the entities registered under it.
- The Board will have 10 members, including representatives from the Ministries of Finance and Law, and the Reserve Bank of India.

Insolvency and Bankruptcy Board of India

- It was established in 2016 under the Insolvency and Bankruptcy Code, 2016 (Code).
- It is a key pillar for the implementation of the Code.

PUBLIC PRIVATE PARTNERSHIP FOR THE BHARATNET PROJECT

◎ CONTEXT:

Bharat Broadband Network Limited (BBNL) has invited global tender for the Development (Creation, Upgradation, Operation & Maintenance and Utilisation) of BharatNet through Public Private Partnership model.

About the BharatNet project

- BharatNet is the Government of India's flagship project which is considered to be the backbone of 'Digital India'.
- It aims to reduce the digital divide between urban and rural India.
- The BharatNet infrastructure is a middle mile network which is presently leased to the service providers for providing affordable high-speed broadband to the rural population, individuals, households and the institutions.

Significance of the project:

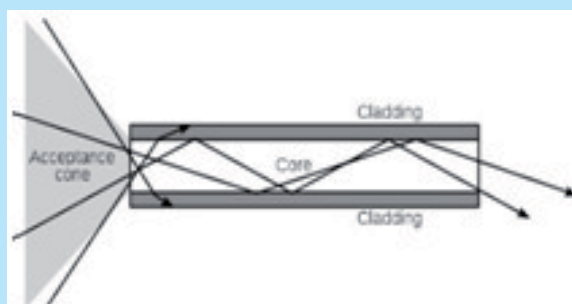
- A World Bank study said that a 10% increase in broadband connectivity will lead to a 1.38% increase in Gross Domestic Product (GDP). Broadband penetration in India is at present less than 2%.
- Government of India has approved the setting up of National Optical Fiber Network (NOFN) to provide connectivity to 2,50,000 Gram Panchayats of the country. This would ensure broadband connectivity with adequate bandwidth.
- Broadband is a tool to improve the lives of the people by providing affordable and equitable access to the information and knowledge. It can contribute towards increasing trade and employment avenues.
- Information and communication Technologies (ICT) applications such as e-Commerce, e-Governance, e-Banking, e-Education and Tele-medicine require high speed Internet connectivity. NOFN will facilitate this initiative.

What is BharatNet Public Private Partnership?

- The existing BharatNet was connecting all the Gram Panchayats (GPs) of the country by laying of OFC between Block and GPs.

What is OFC (Optical Fibre Cable)?

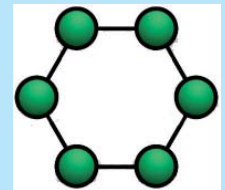
- A fiber-optic cable is composed of very thin strands of glass or plastic which are known as optical fibers.
- One cable can have as few as two strands or as many as several hundreds of them.
- These optical fiber cables carry information between two places using optical or light-based technology.
- A photoelectric cell will be required to turn the pulses of light back into electrical information the computer could understand.



- Now, the scope of BharatNet has been enhanced to connect all the Inhabited Villages of the country, approx. 6.43 lakhs.
- The scope of work under BharatNet PPP Project includes:
 - Connecting the remaining unconnected GPs under BharatNet project and all the inhabited Villages beyond the GPs.
 - Upgradation of existing BharatNet Network from Linear to **Ring topology**.
 - Operation and Maintenance (O&M) and Utilisation of existing as well as the newly deployed network.

Ring topology

- A **ring network** is a network topology to connect two other nodes every nodes.
- It forms a single continuous pathway for signals through each node, a ring.
- Data travels from node to node and each node along the way handling every packet.



AKASH-NG-SURFACE-TO-AIR MISSILE, SUCCESSFULLY FLIGHT-TESTED BY DRDO

© CONTEXT:

Defence Research & Development Organisation (DRDO) successfully flight-tested the New Generation Akash Missile (Akash-NG), a surface-to-air Missile from Integrated Test Range (ITR) off the coast of Odisha.

Key features of the Akash-NG missile

- The missile system has been developed by Defence Research & Development Laboratory (DRDL), Hyderabad in collaboration with other DRDO laboratories.
- It is a New Generation surface-to-air Missile.
- The missile has high manoeuvrability to neutralise aerial threats.
- The missile is objected to boost to Air Defence capabilities of the Indian Air Force.
- To capture flight data, ITR deployed several Range stations like Electro-Optical Tracking System, Radar and Telemetry.

How it is different from the Akash Missile?

- This missile is a successor to the Akash and Akash-1S series of missiles with improvements such as a Dual-pulse solid rocket motor, a canisterized launcher and an AESA Multifunction targeting radar to improve its probability of kill with a smaller ground operations and logistics footprint.

Akash Missile

- The Akash missile system can target aircraft up to 50–80 km (31–50 mi) away, at altitudes up to 18,000m.
- It has the capability to neutralise aerial targets like fighter jets, cruise missiles and air-to-surface missiles as well as ballistic missiles.
- Akash flies at supersonic speed, reaching around Mach 2.5.
- It has the capability to neutralise aerial targets like fighter jets, cruise missiles and air-to-surface missiles as well as ballistic missiles.

DRAFT DRONE RULES, 2021 RELEASED BY MINISTRY OF CIVIL AVIATION

◎ **CONTEXT:**

The Ministry of Civil Aviation (MoCA) has released the updated, Drone Rules, 2021 for public consultation. The Drone Rules, 2021 will replace the UAS Rules 2021 (released on 12 March 2021).

About the Drone Rules, 2021

- **Applicability:** Drone Rules 2021 will apply to individuals owning, possessing, exporting, importing, manufacturing, trading, leasing, operating, transferring, or maintaining a drone in India. They don't apply to drones used by the armed forces.
- **Issuing authority:** The certificate will be issued by the **Quality Council of India** or a certification body authorized by the government.
- **Drone Promotion Council:** The draft policy talks about a potential trade body called the **Drone Promotion Council** to develop "a business-friendly regulatory regime".
 - The council will work on automated permissions, incubator centers, and organize drone technology events and competitions to state the draft policy.
- **Drone Corridor:** The rules also envision a **drone corridor** that will cater to deliveries and taxis.
 - A drone taxi, or passenger drone, is a pilotless helicopter that can fly at a speed of around 130 km/hour.
- **Safety features:** Safety features like 'No permission – no take-off' (NPNT), real-time tracking beacon, geo-fencing, etc. to be notified in the future. A six-month lead time will be provided for compliance.
- **Digital sky platform** shall be developed as a business-friendly single-window online system.
 - **Airspace map:** An interactive **airspace map** with green, yellow, and red zones will be displayed on the digital sky platform.
- **Minimal human interface:** There will be a minimal human interface on the digital sky platform and most permissions will be self-generated.
- **Regulation of imports:** Import of drones and drone components to be regulated by DGFT.
- **Coverage:** Coverage of drones under **Drone Rules, 2021** increased from 300 kg to 500 kg. This will cover drone taxis also.

Why the Drone Rules are needed?

- The new rules come over a month after India witnessed what has been described as the country's **first-ever terror attack** carried out by a UAV.
- The new rules will give a push for 'Made-in-India' drone technology.

About Drones

- Drones are unmanned aerial vehicles that can be maneuvered remotely by a pilot.
- There are three subsets of Unmanned Aircraft:
 - Remotely Piloted Aircraft
 - Autonomous Aircraft
 - Model Aircraft
- Based on their weight, drones can be divided into five categories:
 - **nano** (weighing up to 250 g)
 - **micro** (250 g to 2 kg)
 - **small** (2-25 kg)
 - **medium** (25-150 kg)
 - **large** (over 150 kg)

FIRST RECORDED DEATH DUE TO H5N1 AVIAN INFLUENZA

◎ CONTEXT:

An 11-year-old boy is died of H5N1 avian influenza in Delhi. In January, bird flu was confirmed in several states with thousands of birds, being found dead.

What is Avian influenza?

- Bird flu or avian influenza is a disease which is caused by avian influenza **Type A viruses** found naturally in the wild birds worldwide.
- The virus can infect domestic poultry which includes chickens, ducks and turkeys.
- **Avian Influenza type A viruses** which are classified based on two proteins on their surfaces:
 - ◉ Hemagglutinin (HA)
 - ◉ Neuraminidase (NA)
- There are about 18 HA subtypes and 11 NA subtypes.
- Several combinations of these two proteins are also possible e.g., **H5N1, H7N2, H9N6, H17N10, etc.**
- The virus was first detected in geese in China in 1996.
- **Symptoms of avian influenza:** Fever, cough, sore throat, nausea, abdominal pain, muscle aches, diarrhea, vomiting Severe respiratory illness (respiratory distress, viral pneumonia, respiratory failure), Neurologic changes (altered mental status, seizures).
- **Risk groups:** Children and adults below 40 are seen to be the most affected and mortality was high in 10-19 years old.

How deadly is this virus?

- HPAI Asian H5N1 is deadly for poultry.
- The infection is deadly as it has a high mortality rate of about 60%.

Human Transmission of influenza

- **Most common route of transmission:** Direct contact
 - Humans can also be affected after coming in contact with contaminated surfaces or air near the infected poultry.
 - The transmission of the virus from the birds to humans is rare and sustained human-to-human transmission of the H5N1 virus has not been established yet.
- There have been reports of avian and swine influenza infections in the humans including A(H1N1), A(H1N2), A(H5N1), A(H7N9), etc.
 - The first report of the human H5N1 infection was in 1997.
 - Currently, over 700 human cases of **Asian Highly Pathogenic Asian Avian Influenza A (HPAI) H5N1 virus** have also been reported to the World Health Organisation from 16 countries.

LAUNCH OF ARTIFICIAL INTELLIGENCE-POWERED GRIEVANCE MANAGEMENT APPLICATION

- ◎ **CONTEXT:** An Artificial Intelligence (AI)-powered grievance management application, developed by the Ministry of Defence with the help of IIT-Kanpur is launched.

About the AI based grievance Application

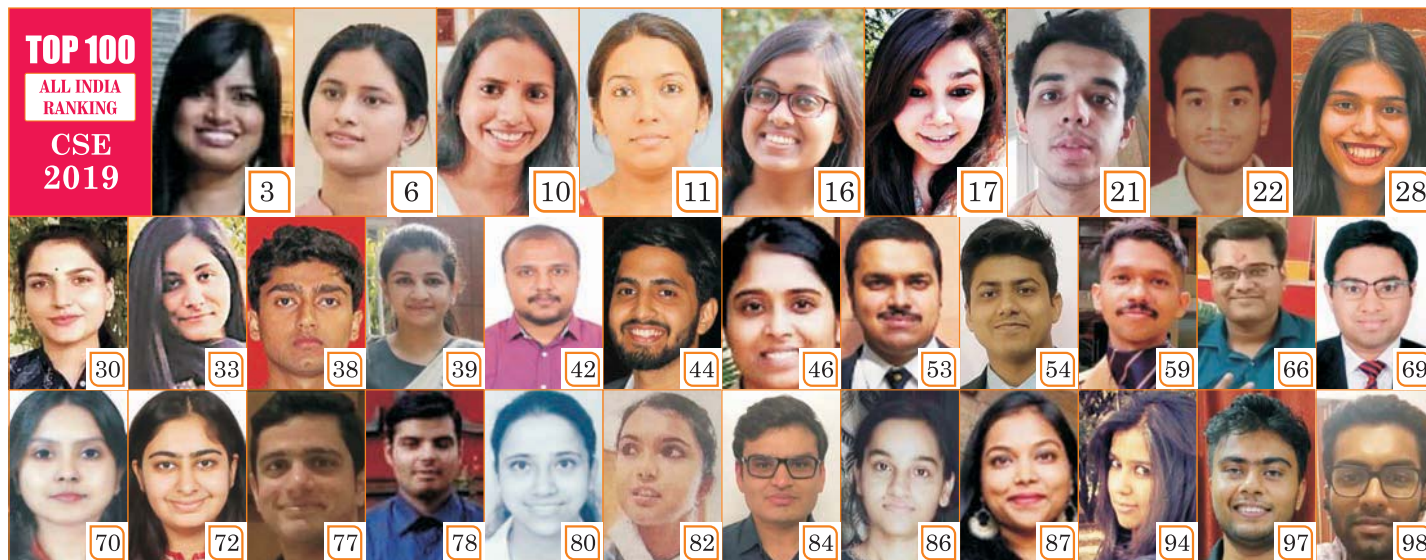
- This is the **first AI-based system** developed to improve **grievance redressal** in the Government.
- The AI tool developed as part of the initiative can understand the content of the complaint based on the contents therein. As a result, it can identify repeat complaints or spam automatically.
- **Categorization of complaint:** Based on the meaning of the complaint, it can categorize complaints of different categories even when keywords normally used for such search are not present in the complaint.
- **Geographical analysis of complaints:** It enables geographical analysis of complaints in a category including analysis of whether the complaint was adequately addressed or not by the concerned office.
- **User-friendly:** Easy user-friendly search enables the user to formulate his queries/categories depending on management requirements and seek performance results based on the query.

Significance of the application

- The release of this application marks the introduction of **AI-based innovations into governance and administration**.
- This project is the first of its kind initiative of the Government for using AI, data science, and Machine Learning techniques in grievance redressal.
- The success of this project in MoD will pave the way for the extension of this application across other Ministries.

CPGRAMS portal

- CPGRAMS is an online web-enabled system over NICNET.
- **Developed by:** It is developed by National Informatics Centre (NIC), in association with the Directorate of Public Grievances (DPG) and Department of Administrative Reforms and Public Grievances (DARPG).
- The platform is based on web technology which primarily aims to enable submission of grievances by the aggrieved citizens from anywhere and anytime (24x7) basis to Ministries/Departments/Organisations who scrutinize and take action for speedy and favorable redress of these grievances.
- Tracking grievances is also facilitated on this portal through the system-generated unique registration number.



SUCCESS IS A PRACTICE WE DO!

