



Information Technology Act's Section 69A

For Prelims: Right to Free Speech, Cyber Crime

For Mains: Information Technology Act's Section 69A and Intermediaries

Why in News?

Ministry of Electronics & Information Technology (MeitY) issued orders under **Section 69 (A) of the Information Technology Act, 2000** to take down certain posts from [Twitter \(Microblogging Site\)](#).

- Twitter has moved to Karnataka High Court, claiming that many of the blocking orders are procedurally and substantively deficient under Section 69 (A) of the Act.

What is the Current Issue?

- The Ministry said under Section 69 (A) of the IT Act, the company has “failed to comply with the directions on multiple occasions”.
- Twitter submitted a list of over 80 accounts and tweets that it had blocked based on a request from the government in 2021.
- Twitter claims that **the basis on which multiple accounts and posts have been flagged** by the Ministry are **either “overbroad and arbitrary” or “disproportionate”**.
- According to Twitter, some of the content flagged by the ministry **may pertain to official accounts of political parties, blocking which could be violative of the [Right to Free Speech](#)**.

What is Section 69 (A) of the Information Technology Act?

▪ About:

- It **confers on the Central and State governments the power to issue directions** “to intercept, monitor or decrypt any information generated, transmitted, received or stored in any computer resource”.
- The **grounds on which these powers may be exercised are:**
 - In the interest of the sovereignty or integrity of India, defence of India, the security of the state.
 - Friendly relations with foreign states.
 - Public order, or for preventing incitement to the commission of any cognizable offence relating to these.
 - For investigating any offence.

▪ Process of Blocking Internet Websites:

- Section 69A, for similar reasons and grounds (as stated above), **enables the Centre to ask any agency of the government, or any intermediary, to block access** to the public of any information generated, transmitted, received or stored or hosted on any computer resource.
 - The term **‘intermediaries’ includes providers of telecom service, network service, Internet service and web hosting, besides search engines**, online payment and auction sites, online marketplaces and cyber cafes.

- Any such request for blocking access **must be based on reasons given in writing.**

What are the other Related Laws?

- In India, the [Information Technology \(IT\) Act, 2000](#), as amended from time to time, governs all activities related to the use of computer resources.
- It **covers all 'intermediaries' who play a role in the use of computer resources** and electronic records.
- The role of the intermediaries has been spelt out in separate rules framed for the purpose in 2011- **The Information Technology (Intermediaries Guidelines) Rules, 2011.**

What is the Reason for Intermediaries to Show Compliance to IT Act?

- **International Requirement:**
 - Most nations have framed laws mandating cooperation by Internet service providers or web hosting service providers and other intermediaries to cooperate with law-and-order authorities in certain circumstances.
- **To Fight Cybercrime:**
 - Cooperation between technology services companies and law enforcement agencies is now deemed a vital part of **fighting [cybercrime](#)** and various other crimes that are committed using computer resources.
 - These cover hacking, digital impersonation and theft of data.
- **To Prevent Misuse of Internet:**
 - The potential of the misuse has led to law enforcement officials constantly seeking to curb the ill-effects of using the medium.

[Source: IE](#)

Metaverse Standards Forum

For Prelims: Metaverse, Augmented Reality, Virtual Reality

For Mains: Metaverse Standards Forum, Need of Interoperability in Metaverse

Why in News?

Recently, various brands gathered for the founding of the [Metaverse Standards Forum for the development of interoperability standards](#) to drive the growth of the metaverse.

What is Metaverse?

- The metaverse is not a new idea, science fiction writer Neal Stephenson coined the term in 1992, and the **concept is commonplace among video game companies.**
- Metaverse is the **next version of the Internet** focused on social connection.
 - It can be defined as a simulated digital environment that uses [Augmented Reality \(AR\)](#), [Virtual Reality \(VR\)](#), and [blockchain](#), along with concepts from social media, to create spaces for rich user interaction mimicking the real world.
- It can be imagined as a 3D virtual world, with ever-evolving aspects which are collectively shared by its inhabitants - a virtual world with real-time events and an online infrastructure.
- In theory, it encapsulates everything that's happening into the real world and will bring real-time

events and updates going forward. The user exists in a virtual world without borders.

What is the Metaverse Standards Forum?

▪ About:

- The concept of the metaverse **has yet to be fully established, but interest in virtual and augmented realities fast-tracks the growth of various metaverse projects.**
- In light of the growing anticipation for the metaverse, **Metaverse Standards Forum** was established **“to foster the development of open standards for the metaverse”**.
 - **"Open Standards"** are standards made available to the general public and are developed (or approved) and maintained via a collaborative and consensus driven process. "Open Standards" facilitate interoperability and data exchange among different products or services and are intended for widespread adoption.
- The internet is **interoperable through the power of HTML**, the **metaverse also requires a similar interface for users** to navigate between virtual worlds freely.

▪ Objectives:

- It aims to **analyze the interoperability necessary** for running the metaverse.
 - Interoperability is the **driving force for the growth and adoption of the open metaverse.**
- It will focus on pragmatic, action-based projects such as implementation prototyping, hackathons, plugfests, and open-source tooling to **accelerate the testing and adoption of metaverse standards.**
- It will also develop **consistent language and deployment guidelines to expand the online universe.**

What is the Need of Interoperability of Metaverse?

- Interoperability **equips the metaverse with support for the different features** and activities across projects.
- This continuity is **essential in generating a fluid user experience from one metaverse project to another.**
- With open interoperability standards and guidelines to follow, **companies can launch fully interoperable projects, allowing them to integrate their programming interfaces with other projects.**
- There has to be a set of commonly agreed upon protocols to make the metaverse work, just like how Transfer Control Protocol/Internet Protocol (TCP/IP) enabled the Internet to go live four decades ago.
 - Such protocols help us in connecting to a WiFi network from home and office without changing our devices.
- They are a result of open standards. The potential of the metaverse **will be best realised only if it is built on open standards.**
- Proponents of the metaverse call it the future of the Internet with 3D at its core. And to fully simulate the digital world, **3D interoperability has to be met.**

What can be India's Role in Building Metaverse?

▪ India-Primed for the Metaverse:

- Since 2015, India has **risen almost 40 places in the [Global Innovation Index](#), now ranking 46th in the world.**
- India has a **thriving culture of [entrepreneurship](#)**, which has recently experienced significant growth.
- This environment is bolstered by a set of favourable consumer trends, including rising disposable income, increasing smartphone adoption and affordable mobile data.

▪ Emerging Digital Infrastructure:

- The last decade has seen the **[creation of India Stack](#)**, which is a combination of technology projects, including the national digital identification and payments

infrastructure, that together heralded a new era of financial inclusion in the country.

- India's plans **to use blockchain applications for e-governance** included a proposal for a blockchain-backed [Digital Rupee](#), to be issued by the [Reserve Bank of India](#) from 2022-23.
- The government has also announced that it will conduct **spectrum auctions to facilitate rollout of 5G mobile services**, which should accelerate demand for cloud applications - including those for gaming and the metaverse.
- **The Evolving Regulatory Landscape:**
 - While the technical, demographic and policy foundations for the metaverse appear to be present in India, **there remains the operational challenge of building the metaverse.**
 - If India is to take a leading role, **deal flows in the private sector will need to accelerate.**
 - The latest Union Budget levies a 30% tax on income from transfers of Virtual Digital Assets (VDAs), which could include cryptocurrencies and potentially [Non-Fungible Tokens \(NFTs\)](#).
 - While the tax would imply recognition of crypto as an asset that can be regulated, it does not legalise **crypto ownership, which can be done through due legislation.**
 - Beyond crypto, the metaverse **also raises policy questions of how privacy and security should be addressed.**
 - Online risks may be exacerbated in the metaverse, where unwanted contact could become more intrusive and pervasive.
 - **Governance mechanisms for virtual worlds would need to be supported with strengthening and scaling efforts** to promote digital literacy, safety and wellbeing so that participants can engage meaningfully in online communities while consciously navigating harmful content and behaviours.

[Source: TH](#)

Sustainable Use of Wild Species: IPBES Report

For Prelims: IPBES

For Mains: Sustainable Use of Wild Species

Why in News?

A report released by the **Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)** has stated that Sustainable use of wild species can meet needs of billions.

- Delegates from 140 countries came together to discuss and **reach an outcome on the sustainable use of wildlife.**
- The assessment shortlisted five categories of practices used for wild species — **Fishing, Gathering, Logging, Terrestrial animal harvesting** which includes hunting and non-extractive practices such as observing.
- The report is the first of its kind and has been **conceived after a period of four years.**

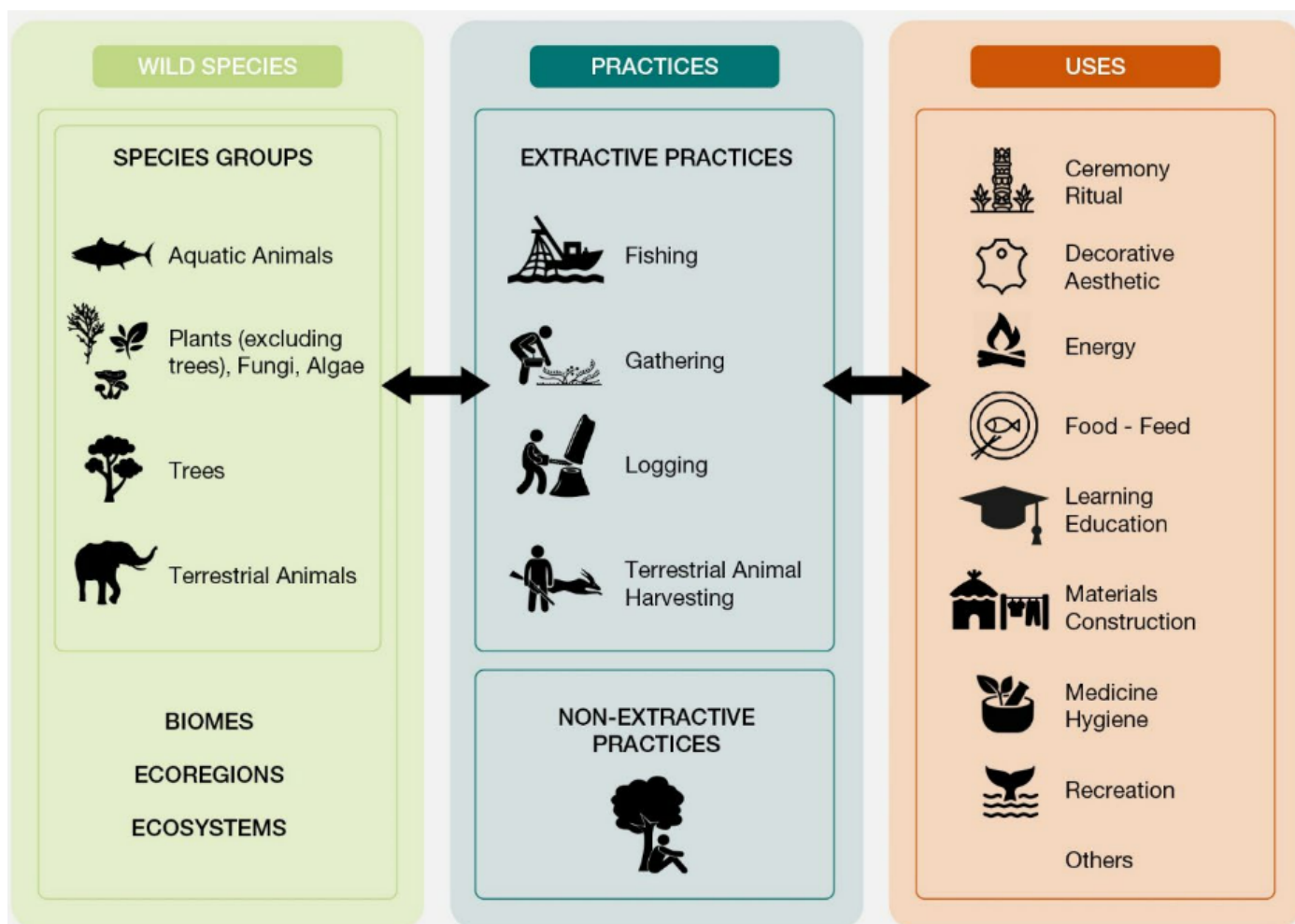
What is IPBES?

- It is **an independent intergovernmental body**, established by member States in 2012.

- It **strengthens the science-policy interface for biodiversity and ecosystem services** for the conservation and sustainable use of biodiversity, long-term human well-being and sustainable development.

What are the Findings?

- **Dependence on Wild Species:**
 - About **70% of the world's poor population** is directly dependent on wild species.
 - 20% source their food from wild plants, algae and fungi.
- **Wild-Species-Important Source of Income**
 - The use of wild species is an **important source of income** for millions of people worldwide.
 - Wild tree species **account for two thirds of global industrial roundwood**, trade in wild plants, algae and fungi is a billion-dollar industry, and even non-extractive uses of wild species are big business.
- **Local Variations:**
 - About 34% of marine wild fish stocks are overfished and 66% are fished within biologically sustainable levels. But within this global picture, there are significant local and contextual variations.
- **Unsustainable Logging of Tree Species:**
 - The survival of an estimated 12% of wild tree species is **threatened by unsustainable logging**.
 - **Unsustainable gathering** is one of the main threats for several plant groups, notably cacti, cycads and orchids.
 - **Unsustainable hunting** has been identified as a threat for 1,341 wild mammal species – with declines in large-bodied species that have low natural rates of increase also linked to hunting pressure.
- **Rural People are at Risk of Unsustainable Use:**
 - Rural people in developing countries are most at risk from unsustainable use of Wild Species, with lack of complementary alternatives often forcing them to exploit wild species already at risk.
 - About 50,000 wild species are used through different practices, including more than **10,000 wild species harvested directly for human food**.
- **Cultural Significance leading to Exploitation:**
 - Certain species have cultural importance as they offer multiple benefits that define tangible and intangible features of people's cultural heritage.
 - The use of wild species is also a source of culturally meaningful employment for such communities and they have engaged in the trade of wild species and materials since millennia.
 - Wild rice (*Zizania palustris* L.) is a cultural keystone species, providing physical, spiritual and cultural sustenance for many indigenous peoples in the Great Lakes region of North America
- **Drivers and Threats:**
 - Drivers such as land- and seascape changes, climate change, pollution and invasive alien species that impact the abundance and distribution of wild species, and can **increase stress and challenges among the human communities that use them**.
- **Illegal Trade:**
 - Global trade in wild species has expanded substantially in volume, value and trade networks over the past four decades.
 - Illegal trade in wild species represents the **third largest class of all illegal trade** – with estimated annual values of up to USD199 billion. Timber and fish make up the largest volumes and value of illegal trade in wild species.



What are the Recommendations?

- **Integration of diverse value systems, equitable distribution of costs and benefits, changes in cultural norms and social values** and effective institutions and governance systems can facilitate the sustainable use of wild species in future.
- Addressing the causes of unsustainable use and, wherever possible reversing these trends, will **result in better outcomes for wild species and the people who depend on them.**
- **Bringing scientists and indigenous peoples together** to learn from each other will strengthen the sustainable use of wild species.
 - This is especially important because **most national frameworks and international agreements largely continue to emphasize ecological and some social considerations, including economic and governance issues** - while cultural contexts receive little attention.
- **In fishing, fixing current inefficiencies, reducing illegal, unreported and unregulated fishing**, suppressing harmful financial subsidies, supporting small-scale fisheries, adapting to changes in oceanic productivity due to climate change, and proactively creating effective transboundary institutions will help sustainable Use.
 - Countries with robust fisheries management had seen stocks increasing in abundance. The Atlantic bluefin tuna population, for instance, has been rebuilt and is now fished within sustainable levels.
- **In logging** this would entail **management and certification of forests for multiple uses**, technological innovations to reduce waste in manufacturing of wood products, and economic and political initiatives that recognize the rights of indigenous peoples and local communities, including land tenure.

[Source: DTE](#)

India's Defence Exports

For Prelims: Defence Technology

For Mains: Technology, Defence Exports, Indigenization of Technology

Why in News?

India's defence exports for 2021-22 were estimated at Rs 13,000 crore, the highest ever.

- The U.S. was a major buyer, as also nations in Southeast Asia, West Asia and Africa.

What are the Key Highlights?

- The **private sector accounted for 70%** of the exports, while public sector firms accounted for the rest.
 - Earlier, the private sector used to account for 90% but now the share of defence public sector units had gone up.
- While India's defence imports from the U.S. have gone up significantly in recent years, **Indian companies have been increasingly becoming part of the supply chains of U.S. defence companies.**

What steps have been taken recently to boost defence exports?

- In January 2022, India signed a [USD 374.96-million deal with the Philippines](#), its single **biggest defence export order**, for the supply of three batteries of shore-based anti-ship variant of the [BrahMos supersonic cruise missile](#).
- India has **imposed a phased import ban on 310 different weapons** and systems during the last two years, which helped boost export.
 - These weapons and platforms will be indigenised in phases over the next five to six years.
- The **increased partnership with the private sector** has led to a substantial rise in defence exports.

What is the Status of India's Defence Exports?

- Defence exports are **a pillar of the government's drive to attain self-sufficiency** in defence production.
- Over 30 Indian defence companies have exported arms and equipment to countries like Italy, Maldives, Sri Lanka, Russia, France, Nepal, Mauritius, Sri Lanka, Israel, Egypt, UAE, Bhutan, Ethiopia, Saudi Arabia, Philippines, Poland, Spain and Chile.
- The exports include personal **protective items, defence electronics systems, engineering mechanical equipment, offshore patrol vessels, advanced light helicopters, avionics suits, radio systems and radar systems.**
- However, India's defence exports are still not upto the expected lines.
 - The [Stockholm International Peace Research Institute \(SIPRI\)](#) ranked India at number 23 in the list of major arms exporters for 2015-2019.
 - India still accounts for only 0.17% of global arms exports.
- Reason for dismal performance in India's Defence exports is that, India's Ministry of Defense so far has no dedicated agency to drive exports.
- India has set a target of clocking defence exports worth USD 5 billion by 2024.

What are the Initiatives Related to Defence?

- **Defence Production and Export Promotion Policy 2020 (DPEPP 2020):**
 - The [DPEPP 2020](#) is envisaged as an overarching guiding document to provide a focused, structured and significant thrust to defence production capabilities of the country for self-reliance and exports.
- **Multi-Pronged Steps Towards Self Reliant Defense Sector:**
 - There have been progressive changes with one focus to empower the private industry.
 - The [DPP 2016](#) came out with a new category called [Indian IDDM](#) (Indigenously Designed, Developed and Manufactured) .
 - If any Indian company opted for Indian IDDM, it was given preference over all other categories.
- **Strategic Partnership:**
 - A strategic partnership model allows indian companies to collaborate with [foreign OEMs](#) and get transfer of technology, get the capability to build, manufacture india and sustain those projects in india.
 - The first of the RFP for the [conventional submarines](#) in functioning.
- **Positive Indigenization:**
 - For the first time the government is putting a ban on itself to import any item, the Government wants to empower the [indigenous industry](#).
 - **There are** [two positive indigenization](#) lists of 101 items and 108 items that range from platforms to weapon systems to sensors to the entire plethora of items.

[Source: TH](#)

Kisan Credit Card

For Prelims: Kisan Credit Card, NABARD, Banking System, Agriculture, Government Schemes

For Mains: Kisan Credit Card, Government Policies for Agriculture, Role of Agriculture in Indian Economy, Challenges to Inclusive Growth

Why in News?

Recently, the Union Minister of Fisheries, Animal Husbandry and Dairying reviewed the progress in issuance of [Kisan Credit Cards](#) to poor farmers from the Animal Husbandry, Dairying & Fisheries Sector with Banks & [Regional Rural Banks](#).

What do we Need to Know about Kisan Credit Cards?

- **About:**
 - The scheme was **introduced in 1998 for providing adequate and timely credit support from the banking system**, under a single window with flexible and simplified procedure to the farmers for their cultivation and other needs like purchase of agriculture inputs such as seeds, fertilizers, pesticides etc. and draw cash for their production needs.
 - The scheme was further extended for the investment credit requirement of farmers viz. allied and non-farm activities in the year 2004.

- In the Budget-2018-19, government **announced the extension of the facility of Kisan Credit Card (KCC) to fisheries and animal husbandry farmers** to help them to meet their working capital needs.
- **Implementing Agencies:**
 - Commercial Banks
 - Regional Rural Banks (RRBs)
 - [Small Finance Banks](#)
 - [Cooperatives](#)
- **Features:**
 - The scheme comes with an **ATM-enabled RuPay debit card** with facilities for one-time documentation, built-in cost escalation in the limit, and any number of drawals within the limit.
 - Besides ensuring saturation, banks will also be taking steps to link Aadhaar immediately as **no interest subvention will be given** if the Aadhaar numbers are not seeded to KCC accounts.
 - Also, the government has taken several initiatives for KCC saturation which include adding farmers engaged in [animal husbandry](#) and [fisheries](#), no processing fee of loan under KCC and raising the limit of collateral free [agriculture loan](#) from Rs. 1 lakh to Rs.1.6 lakh.
 - The KCC facility will **help fisheries and animal husbandry farmers to meet their short-term credit requirements** of rearing of animals, poultry birds, fish, shrimp, other aquatic organisms and capture of fish.
- **Objectives:**
 - To meet the short term credit requirements for cultivation of crops.
 - Post-harvest expenses.
 - Produce marketing loan.
 - Consumption requirements of farmer households.
 - Working capital for maintenance of farm assets and activities allied to agriculture.
 - Investment credit requirement for agriculture and allied activities.
- **Financial Provisions:**
 - To ensure availability of agricultural credit at a reasonable cost of 7% per annum to farmers:
 - Government of India implements an [interest subvention](#) scheme of 2% for short term crop loans up to Rs. 3 lakh.
 - In addition, the GOI provides interest subvention of 2% and prompt repayment incentive of 3% to the farmers.

What are the Achievements of KCC?

- As of June 2020, around 25 lakh applications have been sanctioned for Nationwide Fishery KCC.
- As part of the [Atmanirbhar Bharat](#) Package, the Government has announced to cover 2.5 crore farmers under the Kisan Credit Card (KCC) scheme with a credit boost of Rs. 2 lakh crores through a special saturation drive.
- As a result of concerted efforts, a major milestone target of covering more than 1.5 crore farmers under KCC, with a sanctioned credit limit of Rs. 1.35 lakh crore has been achieved.

How is KCC Misused?

- Credit is often being transferred towards financially well-off people.
- Funds are diverted to non-agricultural use:
 - Investment in Real Estate
 - Purchase of Vehicles
 - Higher Education of children in foreign countries
- Quantum of land is inflated to avail higher credit.
- KCC route is used for [money laundering](#).

What are the Recommendations?

- All Banks **must follow the Guidelines of KCC properly**, the due acknowledgment for KCC

application should be given to the applicants and a timeline decision on the application should be fixed.

- The reasons for rejection **should be clearly indicated so that field officers could rectify and re-submit the forms.**
- KCC should be **given to people from Maldhari (Ghumantu) Community**, who do not stay in one place and have no collateral security to offer.
 - Maldharis are a tribal herdsmen community in Gujarat, India. Originally nomads, they came to be known as Maldharis after settling in Junagadh district (mainly Gir Forest).
- KCC should be **given to poor fishermen** who are unable to give any collateral.

UPSC Civil Services Exam, Previous Year Questions (PYQ)

Q. Under the Kisan Credit Card scheme, short-term credit support is given to farmers for which of the following purposes?

1. Working capital for maintenance of farm assets
2. Purchase of combine harvesters, tractors and mini trucks
3. Consumption requirements of farm households
4. Post-harvest expenses
5. Construction of family house and setting up of village cold storage facility

Select the correct answer using the code given below:

- (a)** 1, 2 and 5 only
- (b)** 1, 3 and 4 only
- (c)** 2, 3, 4 and 5 only
- (d)** 1, 2, 3, 4 and 5

Ans: (b)

Explanation:

- The Kisan Credit Card (KCC) scheme was introduced in 1998 for providing adequate and timely credit support from the banking system under a single window with flexible and simplified procedure to the farmers for their cultivation and other needs like purchase of agriculture inputs such as seeds, fertilizers, pesticides etc. and draw cash for their production needs.
- The scheme was further extended in the year 2004 for the investment credit requirement of farmers viz allied and non-farm activities.
- Kisan Credit Card is provided with the following objectives:
 - The short term credit requirements for cultivation of crops,
 - Post harvest expenses, **hence 4 is correct.**
 - Produce marketing loan,
 - Consumption requirements of farmer household, **hence 3 is correct.**
 - Working capital for maintenance of farm assets and activities allied to agriculture, like dairy animals, inland fishery, etc., **hence, 1 is correct.**
 - Investment credit requirement for agriculture and allied activities like pumpsets, sprayers, dairy animals, etc. However, this segment forms the long term credit limit portion.
- The Kisan Credit Card Scheme is implemented by Commercial Banks, RRBs, Small Finance Banks and Cooperatives.
- The short term credit support is not given to farmers for Purchase of combine harvesters, tractors and mini trucks and Construction of family house and setting up of village cold storage facility. **Hence, 2 and 4 is not correct.**
- **Therefore, option (b) is the correct answer.**

Mission Vatsalya

For Prelims: Mission Vatsalya, Ministry of women and child development, Integrated Child Protection Scheme

For Mains: Mission Vatsalya, Government Policies & Interventions, Issues Related to Children

Why in News?

Recently, the central government **issued guidelines to states about the Mission Vatsalya child protection scheme**

What are the New Guidelines?

- According to the guidelines, **states cannot change the original name of the scheme in order to gain access** to funding granted by the central government.
- Funds to states will be approved through the **Mission Vatsalya Project Approval Board (PAB)**, which will be chaired by the **WCD Secretary**, who will **scrutinise and approve annual plans and financial proposals** received from states and UTs for release of grants.
- It will be implemented as a **Centrally Sponsored Scheme** in partnership with state governments and UT administrations, with a fund-sharing pattern in a 60:40 ratio.
 - However, for the **eight states in the Northeast** — as well as Himachal Pradesh, Uttarakhand and the UT of Jammu and Kashmir — the Centre and state/UT's share will be 90:10
- MVS, in partnership with states and districts, will **execute a 24x7 helpline service for children**, as defined under Juvenile Justice Act, 2015.
- It will support **State Adoption Resource Agencies (SARA)**, which will further support the **Central Adoption Resource Authority (CARA)** in **promoting in-country adoption and regulating inter-country adoption**.
 - SARA shall **coordinate, monitor and develop the work related to non-institutional care, including adoption in the state**.
- The Mission plans to **establish cradle baby reception centers in at least one specialized adoption agency in each area** for receiving abandoned and trafficked children
- Children in need of care, as well as **special needs children, will be placed in distinct homes based on gender (including separate homes for transgender children) and age**.
 - As they are unable to attend school due to physical or mental disabilities, these institutions will provide **special educators, therapists, and nurses to impart occupational therapy, speech therapy, verbal therapy, and other remedial classes**.
 - Further, employees in these specialised divisions must be fluent in sign language, Braille, and other related languages.
- **Establishment of open Shelters** by the state government will be supported to care for runaway children, missing children, trafficked children, working children, children in street situations, child beggars, child substance abusers etc.
- **Financial support** has also been prescribed for vulnerable children living with **extended families or in foster care, supporting their education, nutrition, and health needs**.

What is Mission Vatsalya?

- **Historical Perspective:**
 - Prior to 2009, the **Ministry of women and child development** implemented **three**

schemes for children in need of protection,

- The juvenile justice programme for children in need of care and protection as well as children in conflict with the law,
 - The integrated programme for street children,
 - The scheme for assistance to children's homes.
- In 2010, these were merged into a single plan known as the [Integrated Child Protection Scheme](#).
 - In 2017, it was renamed "**Child Protection Services Scheme**," and again in 2021-22 as **Mission Vatsalya**.
- **About:**
 - It's an **umbrella scheme for child protection services in the country**.
 - **Components under Mission Vatsalya include** improve functioning of statutory bodies; strengthen service delivery structures; Upscale institutional care and services; encourage non-institutional community-based care; emergency outreach services; training and capacity building.
 - **Objectives:**
 - **To secure a healthy and happy childhood for each and every child in the country.**
 - **To ensure opportunities to enable them to discover their full potential and assist them in flourishing in all respects**, in a sustained manner, foster a sensitive, supportive and synchronized ecosystem for development of children, assist States and UTs in delivering the mandate of the [Juvenile Justice Act, 2015](#) and achieve the [Sustainable Development Goals \(SDGs\)](#).
 - It promotes **family-based non-institutional care of children** in difficult circumstances based on the principle of institutionalization of children as a measure of last resort.

Way Forward

- These guidelines are in the right direction, as there are enormous children in our country who are suffering from physical and mental disabilities and all these initiatives would make their life easy.
- The need to implement all these initiatives efficiently and at a better pace.

[Source: IE](#)

India Animal Health Summit 2022

For Prelims: Diseases related to animals

For Mains: Economic and social Implications of Animal Health on Humans

Why in News?

Recently, the Union Minister of Fisheries, Animal Husbandry, and Dairying inaugurated the First India Animal Health Summit 2022 in New Delhi.

- Its India's **first-ever Animal health Summit** organized by the Indian Chamber of Food and Agriculture (ICFA) and the Agriculture Today Group.
- Animal health is a critical component of [One Health](#). One Health is an approach that recognizes that the health of people is closely connected to the health of animals and our shared environment.

What is the Importance of Animal Health?

- The **concept of animal health** covers animal diseases, as well as the interplay between animal welfare, human health, environment protection and food safety.
- Many known **human infectious diseases start in animals**, and climate change, for example, is having a significant impact on their transmission.
- Although not all animal diseases are directly harmful to humans, they can have **significant socioeconomic consequences as some people's occupations and lives are dependent on animal health**.
 - 1 in 5 people depend on production animals for their income and livelihoods.
 - > 70% additional animal protein will be needed to feed the world by 2050.
 - > 20% of global animal production losses are linked to animal diseases.
- The **World Organization for Animal Health (WOAH, formerly known as the OIE)** has listed 117 illnesses. More than 50 wildlife illnesses may have major consequences for livestock and public health, as well as wildlife.
 - **WOAH is an intergovernmental organization**, that focuses on transparently disseminating information on animal diseases, improving animal health and welfare globally, and thus building a safer, healthier, and more sustainable world. India is a member.

What are the Diseases Related to Animals?

- **Monkeypox:**
 - It's a viral zoonotic disease among monkeys caused by infection with monkeypox virus that occurs primarily in tropical rainforest areas of central and west Africa and is occasionally exported to other regions.
 - Monkeypox virus belongs to the Orthopox virus genus in the family Poxviridae.
- **Lumpy skin disease (LSD):**
 - It is a notifiable disease caused by the lumpy skin disease virus (LSDV).
 - It affects cattle and water buffalo, damaging animal health and causing significant production and trade losses.
- **African swine fever:**
 - It is a highly contagious and deadly viral disease affecting both domestic and feral swine of all ages. ASF is not a threat to human health and cannot be transmitted from pigs to humans.
- **The foot-and-mouth disease:**
 - It's a highly communicable disease affecting cloven-footed animals. It is characterized by fever, formation of vesicles, and blisters in the mouth, udder, teats, and on the skin between the toes and above the hoofs.
 - In India, the disease is widespread and assumes a position of importance in livestock industry.
 - The disease spreads by direct contact or indirectly through infected water, manure, hay and pastures. It is also conveyed by cattle attendants. It is known to spread through recovered animals, field rats, porcupines and birds.
- **Rabies:**
 - It is a disease of dogs, foxes, wolves, hyaenas and in some places, it is a disease of bats which feed on blood.
 - The disease is passed to other animals or to people if they are bitten by an animal with rabies. The germs which cause rabies live in the saliva of the sick (rabid) animal. This is a killer disease but not every dog which bites is infected with rabies.
- **Avian Influenza (bird flu):**
 - Avian Influenza, or bird flu as it's commonly known, is a disease of birds. Further Some types of bird flu can pass to people, but this is very rare.

What are the Government Initiatives to curb Animal Diseases?

- **Livestock Health & Disease Control:**
 - For promotion of health of livestock and animals, the Department of Animal Husbandry &

Dairying implements a Centrally Sponsored Scheme “Livestock Health & Disease Control” (LH&DC), which envisages control & containment of economically important animal diseases by providing central financial assistance to the States.

▪ **National Animal Disease Control Programme (NADCP):**

- It is a flagship scheme launched by the Prime Minister in September 2019 for the control of Foot & Mouth Disease and Brucellosis by vaccinating 100% cattle, buffalo, sheep, goat, and pig population for FMD and 100% bovine female calves of 4-8 months of age for brucellosis.
- Objective is to control Foot & Mouth Disease (FMD) by 2025 with vaccination and its eventual eradication by 2030.

[Source: PIB](#)

GigaMesh Solution

For Prelims: GigaMesh, ARTPARK, Spectrum, Artificial Intelligence

For Mains: Rural Connectivity, Role of AI in Digital Inclusiveness, Challenges of Digital Inclusiveness in Rural India, Related Government Policies

Why in News?

Recently, Astrome has signed a contract with the Department of Telecommunication to start the pilot project called “GigaMesh Network Solution with 15 villages in India.

- GigaMesh, developed by Astrome, will address congestion issues in rural 4G infrastructure and provide high-tech and affordable internet connectivity.

What Do We Know about GigaMesh?

- The solution has been developed by **Astrome**.
 - The startup is supported by **AI & Robotics Technology Park (ARTPARK)**, the **Technology Innovation Hub (TIH)** at the **Indian Institute of Science (IISc)**.
- It's a **network solution** which will wirelessly provide **fibre-like** backhaul capacity and paves the road for **5G**.
- It is the **world's first multi-beam E-band Radio** that is able to communicate from one tower to multiple towers simultaneously while delivering multi GBPS throughput to each of these towers.
- A **single GigaMesh device can provide up to forty links with 2+ Gbps capacity**, communicating up to a range of ten kilometers.
- GigaMesh features multiple point-to-point communication in E-Band, lowering cost and is driven by software to make it easy to deploy, maintain and repair remotely.

What Do we Need to Know about ARTPARK?

- **About:**
 - ARTPARK is a not-for-profit foundation promoted by the Indian Institute of Science (IISc), Bengaluru to promote technology innovations in **artificial intelligence (AI)** & **Robotics**.
- **Initiatives:**
 - AI researchers at ARTPARK, in collaboration with HealthTech startup Niramai Health Analytix and the Indian Institute of Science (IISc), have also developed **XraySetu**.
 - XraySetu is a platform that can interpret chest X-rays with 98.86 % sensitivity

- toward [Covid-19](#) within few seconds.
- ARTPARK also organized the **ARTPARK Innovation Summit** that brought industry, academia and the government under one roof to discuss important topics such as:
 - how to create next-generation connectivity in rural areas, [health AI](#) for Bharat, connecting Bharat with [Drones](#), inclusive learning for the future and building AI and research ecosystem.
- Apart from this, they participated in an unmanned ground vehicle (UGV) experiment of the [Indian Army](#) and showcased India's only Legged Robotic Dog.

What are the Other Areas where AI can be Used?

- **Policing:**
 - With the help of AI, one can match [facial recognition](#) with the central database, predict the pattern of crime, analyse CCTV footage which are available across the country to identify suspects.
 - Government is digitising all the records, especially the crime records, putting it into one single place called [CCTNS](#) where all the data including the image, biometrics, or the criminal history of a convict or suspect is available.
- **Agriculture:**
 - **AI Helping Analyse Farm Data:**
 - Farmers can analyse factors like weather conditions, temperature, water usage or soil conditions collected from their farm to better inform their decisions.
 - **Precision in Agriculture:**
 - Precision agriculture uses AI technology to aid in detecting diseases in plants, pests, and poor plant nutrition on farms.
 - AI sensors can detect and target weeds and then decide which herbicides to apply within the right buffer zone.
- **Education:**
 - The Ministry of Electronics and Information Technology (MeitY) had launched a ["Responsible AI for Youth"](#) programme in April 2022, wherein more than 11,000 students from government schools completed the basic course in AI.
 - The Central Board of Secondary Education has integrated AI in the school curriculum to ensure that students passing out have the basic knowledge and skills of data science, machine learning and artificial intelligence.
- **Healthcare:**
 - **Machine Learning:**
 - Application of AI can be beneficial in precision medicine - predicting what treatment protocols are likely to succeed on a patient based on various patient attributes and the treatment context.
 - **Natural Language Processing:**
 - NLP involves the creation, understanding and classification of clinical documentation and published research.
 - NLP systems can analyse unstructured clinical notes on patients, prepare reports, transcribe patient interactions and conduct conversational AI.

What has the Government Done to Increase Rural Connectivity?

- **National Broadband Mission:**
 - [NMB](#) will facilitate universal and equitable access to broadband services across the country, especially in rural and remote areas.
 - The vision of the Mission is to fast-track growth of digital communications infrastructure, bridge the [digital divide](#), facilitate digital empowerment and inclusion, and provide affordable and universal access to broadband for all.
- **Ghar Tak Fibre Scheme:**
 - [GTES](#) aims to connect all 45,945 villages of Bihar with high-speed optical fibre.
 - Under the scheme, Bihar has to provide at least five fibre-to-the-home (FTTH) connections per village and at least one WiFi hotspot per village.
 - The Scheme will lead digital services including [e-Education](#), [e-Agriculture](#), [Tele-Medicine](#), [Tele-law](#) and other social security schemes in Bihar ensuring easy access

- to all state natives.
- It is also likely to boost the local employment generation with the implementation of Bharat Net initiative which will be done by recruiting local workers.

Way Forward

- The state should have a positive obligation to **create infrastructure for a minimum standard and quality of Internet access** as well as capacity-building measures which would allow all citizens to be digitally literate.
- The government should invest the resources saved by moving services online, to create a better Rural Digital infrastructure.
- Internet access and digital literacy are dependent on each other, and creation of digital infrastructure must go hand in hand with the creation of digital skills.
- Effective implementation and audit of the National Broadband Mission should be carried out.
 - National Broadband Mission aims at:
 - Providing broadband access to all villages by 2022.
 - Significantly improve quality of services for mobile and internet.

[Source: PIB](#)

PARIMAN Portal

For Prelims: PARIMAN, Remote Sensing Technology, Geographic Information System

For Mains: Challenges to Urban Planning in India, Government's Initiatives, Use of Science and technology for effective Urban Planning

Why in News?

Geo-Portal for NCR known as 'PARIMAN', launched in August 2021 by the [National Capital Region Planning Board \(NCRPB\)](#) and Union Minister for Housing & Urban Affairs has been made open to the public of NCR.

What do we know about PARIMAN?

- **About:**
 - Portal for Analytical Regional Information and Mapping of NCR.
 - Developed through [National Informatics Centre \(NIC\)](#), initially for use by NCR Participating states and the Office of NCRPB.
 - It's a robust system to **facilitate better sub-regional and local planning**. This contains various layers collected from authentic sources.
 - The portal has many Base Maps, Satellite Image services and Night Light Data of different time spans.
 - Terrain map provides the Elevation Profile of a route.
 - Administrative units like State Boundaries to Village Boundaries, various Headquarters to Habitations, Parliamentary and Assembly Constituency Boundaries are integrated in this portal.
 - Layers like Road, Rail and Metro Networks, Points of Interest like Education, Health, Banking, Post Office, Power and Telecom, Industries, Tourism, River and Canal Networks and many more.

- Area of Interest function facilitates a comprehensive view for any information of a particular State or District or Tehsil.

- **Significance:**

- This Geo-Portal will help to **improve decentralized planning and management** in the NCR region.
- This Geo-portal is an important platform to **know where and what exists in the National Capital Region (NCR)** that enables better planning.
- It will help in effective utilization of Remote Sensing and GIS technology.

What do we mean by Geospatial Technology?

- Geospatial technology uses tools like [GIS \(Geographic Information System\)](#), [GPS \(Global Positioning System\)](#) and [Remote Sensing](#) for geographic mapping and analysis.
- These tools capture spatial information about objects, events and phenomena (indexed to their geographical location on earth, geotag). The location data may be Static or Dynamic.
 - Static location data include position of a road, an [earthquake](#) event or [malnutrition](#) among children in a particular region while dynamic location data include data related to a moving vehicle or pedestrian, the spread of an infectious disease etc.
- The technology may be used to create intelligent maps to help identify spatial patterns in large volumes of data.
- The technology facilitates decision making based on the importance and priority of scarce resources.

What are Government's Initiatives for Urban Planning and Development?

- [Smart Cities:](#)

- It promotes cities that provide core infrastructure and give a decent quality of life to its citizens, a clean and [sustainable](#) environment and application of Smart Solutions.

- [AMRUT Mission:](#)

- It ensures that every household has access to a tap with the assured supply of water and a sewerage connection.

- [Swachh Bharat Mission-Urban:](#)

- It aims at making urban India free from open defecation and achieving 100% scientific management of municipal solid waste in 4,041 statutory towns in the country.

- **HRIDAY:**

- [The National Heritage City Development and Augmentation Yojana \(HRIDAY\)](#), aims to bring together [urban planning](#), economic growth and [heritage conservation](#) in an inclusive manner & with the objective of preserving the heritage character of the city.

- [Pradhan Mantri Awas Yojana-Urban:](#)

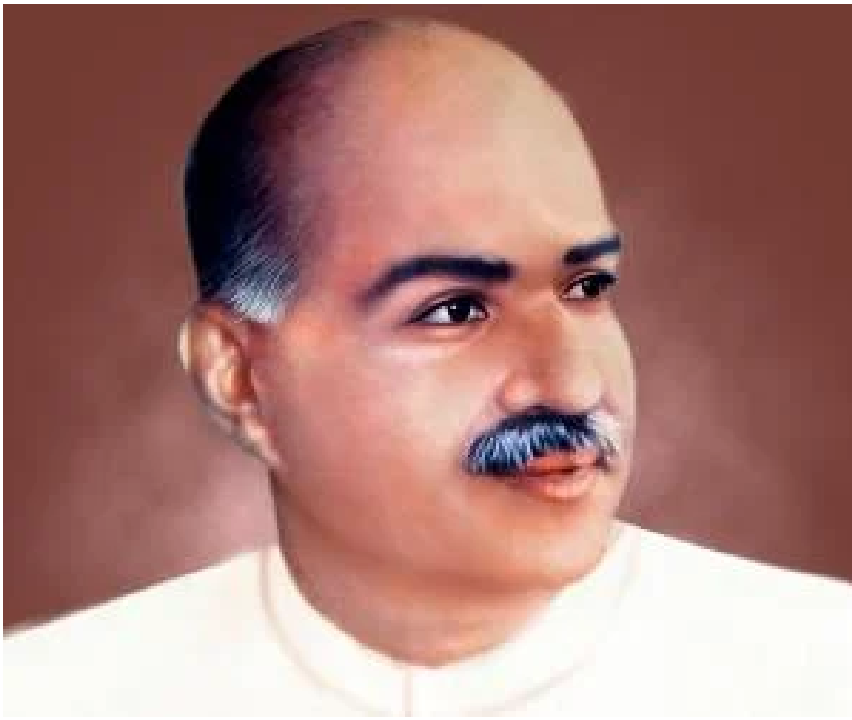
- It addresses Urban housing shortage among the Urban Poor including the Slum Dwellers by ensuring a pucca house to eligible urban poor.

[Source: PIB](#)

Dr. Shyama Prasad Mukherjee

Why in News?

The Union Home Minister paid tribute to Dr. Shyama Prasad Mukherjee on his birth anniversary.



Who was Dr Shyama Prasad Mukherjee?

- Shyama Prasad Mukherjee was born in a Bengali Brahmin family on the 6th July, 1901, in Calcutta.
- He was an **Indian politician, barrister, and academician** who served as the **Minister for Industry and Supply** in Prime Minister Jawaharlal Nehru's cabinet.
- At the age of 33, Shyama Prasad Mukherjee **became the youngest vice-chancellor of Calcutta University in 1934.**
- During His term as Vice-Chancellor, **Rabindranath Tagore delivered the university convocation address in Bengali for the first time**, and the Indian vernacular was introduced as a subject for the highest examination.
- He **demande d the partition of Bengal in 1946** to prevent the inclusion of its Hindu-majority areas in a Muslim-dominated East Pakistan.
- He also **opposed a failed bid for a united but independent Bengal made in 1947** by Sarat Bose, the brother of Subhas Chandra Bose, and Huseyn Shaheed Suhrawardy, a Bengali Muslim politician.
- He **founded the Bharatiya Jana Sangh (BJS)**, the predecessor of the modern-day Bharatiya Janata Party (BJP).
- In 1953, to **protest against the special status given to Kashmir** he tried to enter Kashmir without seeking permission and was arrested. He died in mysterious circumstances during detention.

[Source: PIB](#)