

MOST IMPORTANT TOPICS

1. GSAT-20 SATELLITE  GS-3, PRELIMS
2. INTERNATIONAL WETLAND CITY  PRELIMS
3. NARI ADALAT AND PALNA SCHEMES *The Assam Tribune* GS-3, GS-1, GS-5,
PRELIMS
4. NE REGION'S TECH TRANSFORMATION *The Assam Tribune* GS-5

PRELIMS PRACTICE QUESTION

Q. Consider the following paintings and their origin.

1. Warli painting-Orissa
2. Pattachitra painting-Maharashtra
3. Pithora painting-Gujarat

Select the correct codes.

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

GSAT-20 SATELLITE



CONTEXT

- **GSAT-20**, also known as GSAT-N2 or CMS-03, is a **communication satellite** developed by the **Indian Space Research Organisation (ISRO)** and **funded, owned and operated** by **New Space India Limited (NSIL)**, **commercial arm** of the Indian Space Research Organisation (ISRO).



- This will be the **first time** an **Indian government satellite** launches on SpaceX's workhorse **Falcon 9 launcher**.
- The mission is scheduled in the second quarter of 2024.
- It is also **NSIL's second fully funded satellite mission**.

ABOUT GSAT-20

- GSAT-20 is ISRO's latest high-capacity communication satellite.
- It will operate in the Ka-band spectrum and provide high-throughput satellite capacity primarily for broadband connectivity and cellular backhaul services.
- It's coverage zone spans the entire Indian mainland and the island chains of Andaman-Nicobar and Lakshadweep.

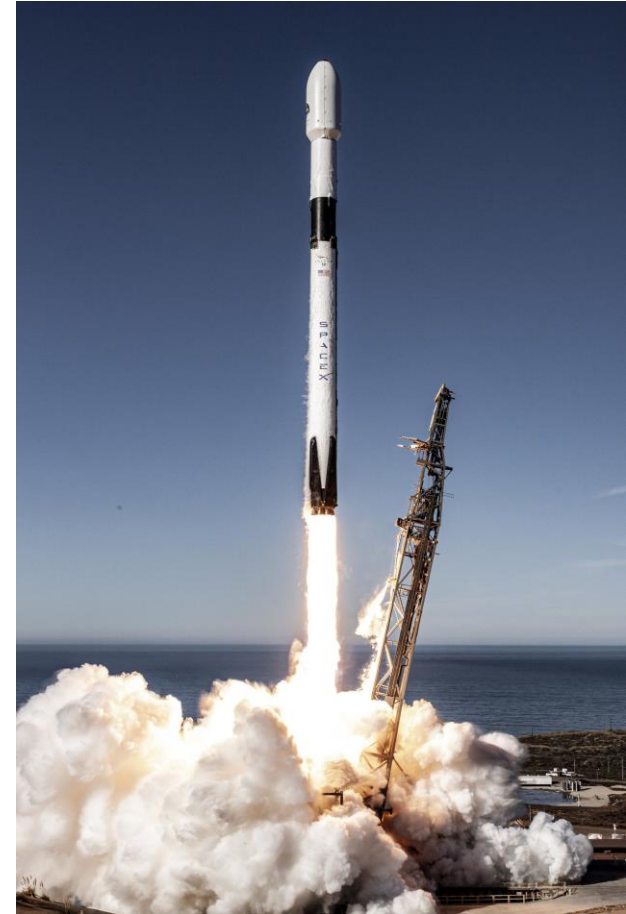
ABOUT KA-BAND SPECTRUM

- The **Ka-band** refers to **radio frequencies** ranging from 27 to 40 GHz.
- It allows high-speed satellite data transfers with wide coverage through focused spot beams.
- Compared to other bands, Ka-frequencies enable using **smaller satellite antennas**.
- This **reduces** overall **costs** of establishing the **communication system**.

- Additionally, the same **Ka-band frequency** can be **reused** through different spot beams directed at different locations.
- This frequency reuse greatly enhances the coverage footprint and capacity of Ka-band satellite communication systems.

ABOUT SPACEX'S FALCON 9 ROCKET

- **Falcon 9** is a **two-stage rocket** developed and manufactured by **SpaceX** for the purpose of transporting **payloads** and **people** into **Earth's orbit**.
- It is partially reusable, with the first stage capable of being recovered and refurbished for future flights, which contributes to reducing the cost of space access.



➤ Falcon 9 can lift 22,800 kg payload mass to Low Earth Orbit, making it ideal for launching heavier satellites like GSAT-20.

WHY NOT ISRO'S OWN ROCKETS?

- ISRO's rockets like **GSLV** and **LVM3** have flown many **foreign satellites** over the years.
- But **GSAT-20**'s 4.7 ton weight **exceeds** their **lift capacities** to deliver satellites to **higher orbits**.

NEWSPACE INDIA LIMITED (NSIL)

- **NSIL** (incorporated in March 2019) is a commercial arm of ISRO.
- It is a **Central Public Sector Enterprise** under the **Department of Space**.
- Presently, NSIL owns and operates 11 communication satellites in orbit.

MANDATE OF NSIL INCLUDES

- Owing satellites for Earth Observation and Communication applications.
- Providing Launch Services for satellite.
- Satellite building through Indian Industry.
- Technology Transfer to Indian Industry.

INTERNATIONAL WETLAND CITY



CONTEXT

- India has submitted nominations for three cities – **Indore**, **Bhopal** and **Udaipur** – to receive the tag of ‘**International Wetland City**’ under the **Ramsar Convention**.
- This recognition highlights efforts by cities to **conserve urban** and **peri-urban wetlands**.



SIGNIFICANCE

- The **International Wetland City accreditation** is a scheme introduced by the **Ramsar Convention** to recognize the **importance** of **cities** and **urban wetlands**.
- This **voluntary scheme** provides an **opportunity** for cities that value their **natural** or **human-made wetlands** to highlight and strengthen a positive relationship with these valuable ecosystems.
- The accreditation aims to promote the conservation and wise use of urban and peri-urban wetlands, as well as sustainable socio-economic benefits for local populations.

INDIAN CITIES AND THEIR WETLANDS

- The wetlands near the three nominated Indian cities sustain local populations. **Indore** has the **Sirpur Ramsar wetland** site, **Bhopal** has the **Bhoj Ramsar wetland** and **Udaipur** has **numerous scenic lakes** that attract tourists.
- Conserving these vital urban wetlands through appropriate policies and citizen participation makes the cities eligible for the Ramsar tag.
- It demonstrates their commitment to wise use of wetlands for current needs and future sustainable development.

NARI ADALAT AND PALNA SCHEMES

Nari Adalats will boost women's empowerment: Minister Ajanta Neog

Women and Child Development Minister Ajanta Neog launched the pilot project of 'Nari Adalats' (women's court) at a function in Guwahati today.

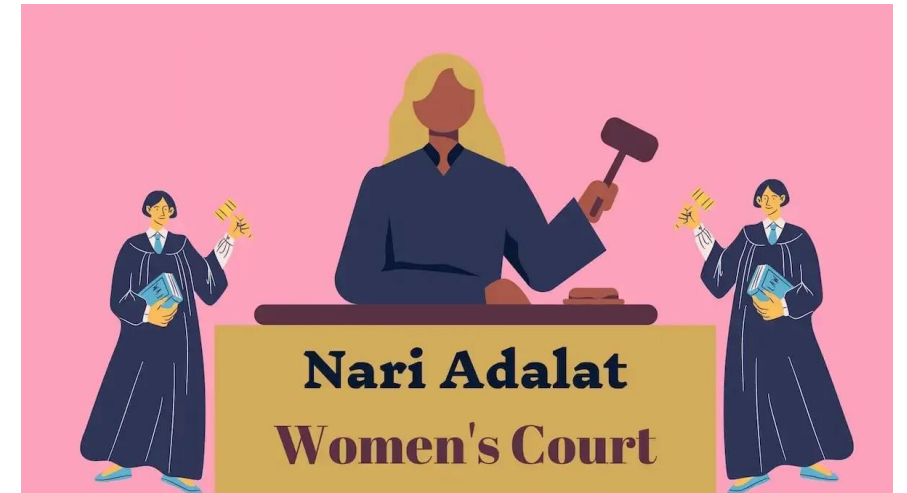


CONTEXT

- Women and Child Development Minister Ajanta Neog launched the **pilot project** of '**Nari Adalats**' (women's court) at a function in Guwahati today.
- She said that Assam is going to create **50 Nari Adalats** in **nine districts**.
- The minister further disclosed that **Anganwadi-cum-Crèche** under '**Palna**' scheme will be implemented in a phased manner. These 'Palnas' will help working women by ensuring proper care for their children.

NARI ADALAT

- The **Nari Adalat scheme** is an initiative under the **Mission Shakti program** by the **Ministry of Women and Child Development**, India.
- It is designed to **provide women** with an **alternative grievance redressal mechanism** for resolving cases of petty nature, such as harassment, subversion, or curtailment of rights or entitlements, faced by them at the local level.



- They have **statutory status** under the **Legal Services Authorities Act, 1987** and are being implemented as a pilot project in various villages, with plans for expansion across the country.
- Each Nari Adalat in a village consists of 7-9 members or "**Nyaya Sakhis**" (legal friends), with **half** of the members being **elected members of the gram panchayat** and the **other half** being women with **social standing**, such as teachers, doctors, and social workers, nominated by villagers.

PALNA SCHEME

- The **Palna Scheme**, earlier known as the **National Creche Scheme**, is a **voluntary initiative** by the **Ministry of Women and Child Development** that provides **daycare facilities** for **children** between the ages of **6 months** and **6 years** of **working mothers** employed for a minimum period of 15 days in a month or six months in a year.
- The scheme has been revised and subsumed as **Palna** under the **Mission Shakti initiative**.



KEY FEATURES OF THE PALNA SCHEME INCLUDE

- Provision of **Anganwadi cum Creches**.
- Inclusion of **crèches** running under the erstwhile **National Creche Scheme**.
- Promotion of greater participation and support of Panchayats and other local-level governments, as well as strengthening digital infrastructure support, last-mile tracking, and **Jan Sahabhagita**.
- Inclusion of existing schemes such as **Ujjwala, Swadhar Greh**, Working Women Hostel, and **PradhanMantriMatruVandanaYojana** (PMMVY)
- Addition of a new component of **Nari Adalat**.

NE REGION'S TECH TRANSFORMATION

NE region's tech transformation

■ G Kishan Reddy

A decade back, the north-eastern region's challenging topography with vast forested area and landlocked geography, was accepted as a natural impediment to development and connectivity in the region. Ten years hence, the region can boast of the world's second highest railway pier bridge in Jiriham-Imphal, a live technological marvel that promises connectivity unhindered by the challenges of topography. Impressively, since 2014, over 5 lakh crore rupees have been spent across various sectors to unleash the region's true potential. Adding further momentum to this initiative, technology and digitisation became an indispensable part of the strategy for holistic development of the region. From public service delivery, governance to youth and enterprise, widespread use of technology is promising a new revolution in the Amrit Kaal of North East India.

To ensure robust infrastructure, use of latest technology in construction of roads has been made mandatory. This will make the roads more resilient in the face of adverse weather conditions. Further, all the states under the aegis of the North East Space Application Centre have prepared plans of action in the domains of agriculture & allied fields, disaster management, forest, ecology & environment, water resource management, medical & health, planning & development and transport communication using space technologies.

Agriculture and horticulture are the two most potent sectors of the region, holding immense potential for economic growth and livelihood generation. Space technology is being used for acreage mapping, horticulture infrastructure mapping, site suitability assessment, mobile app for farmers among others. More than 600 entrepreneurs and thousands of farmers and artisans have benefited from various technologies through Science and Technology Intervention for North East India (STINER), a dedicated scheme under the North Eastern Council (NEC) for promotion of science and technology in the NE region.

The Development of North Eastern Region (DoNER) Ministry is intensively employing technology for monitoring of projects as well. Almost all the project sites have been geo-tagged and a project monitoring portal has been launched. The digital innovation is helping in specific implementation of projects and efficient monitoring. For the first time the DoNER Ministry has placed its field units in all the states for smoother collaboration with state governments. A mobile app is being developed for the field units through which they will ensure swifter implementation of

projects and better coordination with the state government and Central agencies.

In health care, the integration of digital solutions holds the potential to revolutionise access to medical services via telemedicine and mobile diagnostics. An important development on the horizon involves the collaborative efforts of the Ministry of DoNER and Tata Trusts, aiming to establish state-of-the-art cancer hospitals across all states. The

The north-eastern region of India has a tremendous opportunity to accelerate its development through the use of technology. Aligned with the Honourable Prime Minister's vision of Digital India, policymakers, businesses and individuals must come together and collaborate effectively to exploit this opportunity and drive adoption for larger public welfare.

DoNER Ministry has already allocated a substantial grant of Rs 129 crore under the PM-DeViNE initiative for the high-tech Dr B Borooah Cancer Institute in Guwahati. Furthermore, 5G-enabled health applications have been rolled out in all states enabling door-to-door diagnostics, telemedicine, etc. Adding to these strides, a cutting-edge 3D printing centre of excellence has been inaugurated in Guwahati,

marking a significant leap in technological advancements within the health care landscape.

Technology advancements are expected to open new avenues for the talented and skilled youths of the region. Recently, we rolled out India's first 5G training labs across all the states of the north-eastern region. These labs will assist the youths in bridging the digital gap and acquiring futuristic skill sets. A successful tele-education project was executed through establishment of smart

virtual classroom facilities in 75 government schools and four district institutes of education and training (DIETs) in Sikkim and Assam. The primary objective of this initiative was to enhance the quality of education for students residing in remote and rural areas of the region.

The DoNER Ministry shall fund more such initiatives in the future. MeTY is also setting up domain-specific centres for excellence across India to build the next wave of budding entrepreneurs in the emerging areas of technology. Centres of excellence on health care, IoT in agriculture, graphic design, gaming, GIS, etc., are coming up across all the eight state capitals.

The region is also set to benefit from the upcoming National Data Centre for North East, being built at a cost of Rs 348 crore, the Data Centre will skyrocket digitisation capacity of the region,

foster socio-economic growth across sectors and strengthen service delivery across sectors.

In recent years, the North East has shown a great potential for digital acceptance. Forty-seven per cent of individuals in the region own smartphones, which is almost the same as the national average of 48 per cent. Interestingly, the linkage of mobile and bank accounts in the North East is also on a par with the national average of 86 per cent. We are strategising activities to tap into it by enabling growth of common service centres, increase in Aadhar penetration and using this opportunity to promote women's economic empowerment and participation.

The north-eastern region of India has a tremendous opportunity to accelerate its development through the use of technology. Aligned with the Honourable Prime Minister's vision of Digital India, policymakers, businesses and individuals must come together and collaborate effectively to exploit this opportunity and drive adoption for larger public welfare. Private sector should actively seek out opportunities to leverage technology in their operations and embrace digitalisation, automation and data analytics to enhance their efficiency and competitiveness. It is an exciting time to be a part of this transformation unravelling in the North East and efforts are underway to position it as the powerhouse of tech-innovation and tech-led entrepreneurship.

(The author is Union DoNER Minister)

CONTEXT

- A decade back, the **northeastern region's challenging topography** with vast forested area and landlocked geography, was accepted as a **natural impediment** to **development** and **connectivity** in the region.
- Ten years hence, the region can boast of the **world's second highest railway pier bridge** in **Jiribam-Imphal**, a live technological marvel that promises connectivity unhindered by the challenges of topography.
- From **public service delivery, governance** to **youth** and enterprise, **widespread use of technology** is promising a new revolution in the **Amrit Kaal** of **North East India**.

SIGNIFICANT PROGRESS

- To ensure robust infrastructure, use of **latest technology** in **construction** of roads has been made mandatory.
- This will make the roads more resilient in the face of adverse weather conditions.
- Further, all the states under the aegis of the **North East Space Application Centre** have prepared plans of action in the domains of **agriculture & allied fields, disaster management, forest, ecology & environment, water resource management**, medical & health, planning & development and transport communication using space technologies.

SCIENCE AND TECHNOLOGY INTERVENTION

- **Agriculture** and **horticulture** are the two most **potent sectors** of the region, holding immense potential for economic growth and livelihood generation.
- **Space technology** is being used for **acreage mapping**, **horticulture infrastructure mapping**, **site suitability assessment**, mobile app for farmers among others.



➤ More than 600 entrepreneurs and thousands of farmers and artisans have benefited from various technologies through for **North East India (STINER)**, a dedicated scheme under the **North Eastern Council (NEC)** for promotion of **science and technology** in the **NE region**.

DIGITAL ACCEPTANCE

- The **Development of North Eastern Region** (DoNER) Ministry is intensively employing **technology** for monitoring of projects as well.
- Almost all the project sites have been **geotagged** and a **project monitoring portal** has been launched.
- The digital innovation is helping in **speedier implementation** of projects and efficient monitoring.
- For the first time, the DoNER Ministry has placed it's field units in all the states for smoother collaboration with state governments.

➤ In **health care**, the integration of **digital solutions** holds the potential to revolutionise access to **medical services** via **telemedicine** and **mobile diagnostics**.



TO A BETTER FUTURE

- The region is also set to benefit from the upcoming **National Data Centre for North East**. Being built at a cost of Rs 348 crore, the Data Centre will skyrocket **digitisation capacity** of the region, **foster socio-economic growth** across sectors and **strengthen service delivery** across sectors.

- In recent years, the **North East** has shown a **great potential** for **digital acceptance**.
- **Forty-seven per cent** of individuals in the region **own smartphones**, which is almost **the same** as the **national average** of 48 per cent.
- Interestingly, the linkage of mobile and bank accounts in the North East is also on a par with the national average of 86 per cent.
- All of these can be tapped by enabling growth of **common service centres**, increase in **Aadhar penetration** and using this opportunity to promote women's **economic empowerment** and participation.

By the Officers,
For the Officers