

NATIONAL SCIENCE DAY 2024

Union Minister of State (Independent Charge) Science & Technology recently released the theme for the "National Science Day 2024", titled "Indigenous Technologies for Viksit Bharat".



About National Science Day (NSD):

- It is celebrated every year on **February 28** to mark the **contributions of scientists** towards the development of the country.
- **On this day, in 1928**, Indian Physicist **Sir CV Raman** made an important discovery in the field of spectroscopy, which was later named after him: **the Raman Effect**.
 - For this discovery, he was also **awarded the Nobel Prize in Physics in 1930**.
- **History:**
 - The National Council for Science and Technology Communication (NCSTC), in 1986, asked the Government of India to announce February 28 as National Science Day.
 - The government accepted and declared the day National Science Day.
 - The first National Science Day was celebrated on February 28, 1987.

What is the Raman Effect?

- The Raman effect is a **change in the wavelength of light** that occurs **when a light beam is deflected by molecules**.
- When a beam of light traverses a dust-free, transparent sample of a chemical compound, a small fraction of the light emerges in directions other than those of the incident (incoming) beam.
- Most of this scattered light is of an unchanged wavelength. A small part, however, has wavelengths different from that of the incident light; its presence is a result of the Raman Effect.

WHAT IS AN ANTI-SATELLITE WEAPON?

Russia is actively working towards a formidable new development in space technology, focusing on creating a nuclear anti-satellite (ASAT) weapon.



About Anti-Satellite Weapon:

- It is **designed to debilitate or destroy** satellites that are already in orbit and operational.

Types of Anti-Satellite Weapons: ASATs are broadly classified into two types namely

- **Kinetic energy methods:** This involves **launching a missile** that intercepts and physically collides with the target satellite to destroy it. The kinetic energy ASATs physically collide with satellites and can reach altitudes. These ASATs can be ballistic missiles, drones, and other satellites.
- **Non-kinetic methods:** They use **non-physical attacks** such as cyber-attacks, jamming, and even lasers to blind satellites without physically destroying them.

All of these attacks can be launched from the **air, low orbit, or even ground installations.**

- These can even undertake **pellet cloud attacks** on the enemy's low-orbit satellites.
- Other ASAT capabilities include cyber-attacks on space systems, Electro-Magnetic Pulse (EMP) explosion devices, directed energy (laser-based) weapons and targeted missiles for the destruction of satellites to sabotage the enemy's military operations.
- There are many countries which have this capability, but only **four countries** — including India — have demonstrated their ASAT capabilities.

Issues:

- These weapons generate a tremendous amount of **space debris**, which poses a hazard to all space operations, including civilian and commercial satellites.

BHARATIYA BHASHA SAMITI

Recently, the Chairman of Bharatiya Bhasha Samiti advocated for the promotion of Indian languages in education and stated that textbooks will soon be available in Indian languages on digital platforms.



- It is a High-Powered Committee for the Promotion of Indian Languages.
- It has been **constituted by the Ministry of Education**, Government of India in 2021.
- **Mandate:** The mandate of this committee would be to explore and recommend pathways for the holistic and multidisciplinary growth of Indian languages as envisaged in the National Education Policy 2020.
- It has also been entrusted to **advise the Ministry** on all matters pertaining to the revitalization of existing language teaching and research and its extension in various institutions in the country.
- To perform the tasks assigned to it, the High-Powered Committee may appoint sub-committees/study groups.
- The committee may organise seminars, workshops, conferences, and webinars to highlight the need for the promotion of Indian languages.
- It may also interact and coordinate with any institution of the Central/State Government dealing with teaching, research, and extension/promotion of languages.

Shri Lal Bahadur Shastri National Sanskrit University (SLBSNSU), New Delhi would provide **secretarial assistance** and space to house the High-Powered Committee and meet the related expenditure as per the Government of India rules, regulations and instructions from time to time.

- The SLBSNSU has been also entrusted to appoint consultants and experts/scholars/officials/young professionals on a short-term basis and to conduct seminars, workshops, webinars, etc. as per the recommendations of the Committee.
- Necessary finance towards the same would be provided by the Ministry of Education (MoE) to the University under relevant budget heads.

INDIA ON UNSC REFORM

Why in news?

- India's Permanent Representative at the UN Ambassador Ruchira Kamboj, speaking at the **Inter-Governmental Negotiations** on Security Council Reform stressed upon the need for comprehensive reform of the Security Council.
- India has questioned how much longer can the will of five permanent members of the UNSC continue to override the collective voice of the world organisation's 188 member states.

United Nations Security Council (UNSC)

- **About**
 - The United Nations Charter established six main organs of the United Nations, including the UN Security Council (UNSC).
 - UNSC has the primary responsibility for the maintenance of international peace and security.
 - Under the UN Charter, all Member States are obligated to comply with Council decisions.
 - The Security Council has a permanent residence at the United Nations Headquarters in New York City.
- **Powers:**
 - Establishment of peacekeeping operations.
 - Establishment of international sanctions.
 - Authorisation of military action through Security Council resolutions.
- **Members:**
 - The U.N. Charter provides for 15 members of the UNSC:
 - Five permanent members are known as P5, including the United Kingdom, China, France, Russia and the US.
 - They have veto power over decisions of the UNSC.

- 10 non-permanent members. Each year the 193-member General Assembly elects five non-permanent members for a two-year term at the UNSC.

UNSC Reform

- **About**
 - UNSC reform refers to the process of revising and updating the structure, composition, and functioning of the United Nations Security Council (UNSC).
 - The UNSC is one of the six principal organs of the United Nations and is primarily responsible for maintaining international peace and security.
 - However, its current configuration and decision-making processes is not representative of the current geo-political realities.
 - Hence, there is a demand for reform in the UNSC.
- **Reforms in areas**
 - The United Nations Security Council (UNSC) reform includes five key issues:
 - Categories of membership
 - The veto held by the five permanent members
 - Regional representation
 - The size of an enlarged Council and its working methods
 - The Security Council-General Assembly relationship

Challenges faced

- **Resistance from Current Permanent Members (P5)**
- **Lack of Consensus among Member States**
- **Slow Pace of Negotiations**
- **Complexity of Reform Proposals**
 - There are various proposals for reforming the UNSC, including those related to the expansion of permanent and non-permanent membership, the question of veto power, and regional representation.

NATIONAL COMMISSION FOR SCHEDULED CASTES (NCSC)

The National Commission for Scheduled Castes (NCSC) recently recommended the imposition of President's rule in West Bengal.



About the National Commission for Scheduled Castes (NCSC):

- It is an Indian constitutional body established under the jurisdiction of the **Ministry of Social Justice and Empowerment**, Government of India.
- **Article 338** of the Indian Constitution deals with NCSC.
- It was established to **provide safeguards against the exploitation of Scheduled Castes** and Anglo-Indian communities to promote and protect their social, educational, economic, and cultural interests, special provisions were made in the Constitution.
- **History:**
 - The first **Commission for Scheduled Castes and Scheduled Tribes** was set up in **August 1978**.
 - Consequent to the **Constitution (Eighty-Ninth Amendment) Act, 2003**, the erstwhile National Commission for Scheduled Castes and Scheduled Tribes has been replaced by: the **National Commission for Scheduled Castes** and the **National Commission for Scheduled Tribes**.

Duties and Functions of the Commission:

- To **investigate and monitor all matters relating to the safeguards provided for the Scheduled Castes** under the Constitution or under any other law for the time being in force or under any order of the government, and to **evaluate the working of such safeguards**.
- To **inquire into specific complaints** with respect to the **deprivation of rights** and safeguards of the Scheduled Castes.
- To **participate and advise in the planning process of socio-economic development of the Scheduled Castes** and to evaluate the progress of their development under the Union and any state.

- **To present to the President, annually** and at such other times as the Commission may deem fit, **reports upon the working** of those safeguards.
- **To make such reports, recommendations** as to the measures that should be taken by the Union or any state for effective implementation of those safeguards and other measures for the protection, welfare, and socio-economic development of the Scheduled Castes.
- To discharge such other functions in relation to the protection, welfare and development and advancement of the Scheduled Castes as the President may, subject to the provisions of any law made by Parliament, by rule specify.
- **Powers of the Commission:**
 - The Commission shall, while investigating any matter referred to it, have the **powers of a civil court trying a suit.**
 - The Commission shall have **the power to regulate its own procedure.**
 - The Union and every State Government shall consult the Commission on all major **policy matters affecting Scheduled Castes.**
- **Structure:**
 - The Commission shall consist of a **Chairperson, a Vice-Chairperson, and three other Members.**
 - The Chairperson, Vice-Chairperson, and other Members of the Commission shall be **appointed by the President** by warrant under his hand and seal.
 - The **conditions of service and tenure** of office of the Chairperson, Vice-Chairperson and other Members so appointed **shall be such as the President may, by rule, determine.**

DEFENCE ACQUISITION COUNCIL

- DAC is the highest decision-making body in the Ministry of Defence.
- It decides on new policies and capital acquisitions for the Indian military, including the Army, Navy, Air Force, and the Indian Coast Guard.

- The DAC is headed by the Defence Minister.
- **Responsibility**
 - The DAC is responsible for the procurement and acquisition of weapons and equipment for the Indian military.
 - This includes weaponry, armored vehicles, advanced communication systems, and surveillance equipment.
 - The DAC approves projects in three ways:
 - Buy projects: An outright purchase
 - Buy and make projects: A purchase followed by licensed production or indigenous development
 - Make projects: Indigenous production and R&D

Defence Acquisition Procedure (DAP) 2020

- The DAP 2020 has been established as a potential catalyst for the Atmanirbhar Bharat Abhiyaan, in the sector of defence manufacturing.
- It focuses on simplifying the defence acquisition and institutionalising monitoring mechanism for selection of best equipment in a transparent and competitive manner.
- **Salient Features of DAP 2020**
 - Notification of positive indigenisation lists in respect of weapons/platforms to ensure that equipment mentioned in the list is not procured through import.
 - Highest priority to procurement under Buy (Indian-Indigenous Design, Development & Manufacture [IDDM]) category.
 - Reservation for MSMEs and small shipyards for orders up to Rs 100 crore/year.
 - Increased Indigenous Content (IC) in various categories of procurement under DAP-2020.
 - Introduction of new category of **Buy (Global-Manufacture in India)** to give push to 'Make in India' initiative of the Government.

- Indigenisation of imported spares through Make-III Process introduced with the aim of enhancing self-reliance through import substitution.
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THE FOOD CORPORATION OF INDIA (FCI)

- It is a **statutory body** set up in 1965 (under the Food Corporation Act, 1964) under the Ministry of Consumer Affairs, Food and Public Distribution, Government of India.
- It was set up **against the backdrop of a major shortage of grains, especially wheat**, in the country.

Currently, FCI is mandated with three basic objectives:

- To provide effective price support to farmers;
 - To procure [at a minimum support price (MSP)] and supply grains to PDS for distributing subsidised staples to economically vulnerable sections of society; and
 - Keep a strategic reserve to stabilise markets for basic foodgrains.
- With this infusion of capital, the FCI should also embark upon **modernising** its storage facilities, improving transportation networks, and adopting advanced technologies.
 - The government's dual commitment to MSP-based procurement and investment in FCI's operational capabilities signifies **a collaborative effort towards** -
 - Empowering farmers,
 - Fortifying the agricultural sector, and
 - Ensuring food security for the nation.
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