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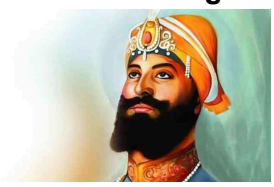
National and International News

Person in news: Guru Gobind Singh 	**Why in news?** • The 358th birth anniversary of Guru Gobind Singh was celebrated. • His **birth anniversary is called Guru Gobind Singh Jayanti, and his death anniversary is called Guru Gaddi Diwas.** **Key Points:** • He was the **10th and last human Guru of the Sikhs.** • He became the **spiritual and temporal leader of the Sikhs on November 11, 1675, at the age of nine, following the martyrdom of his father, Guru Tegh Bahadur, at the hands of the Mughal emperor Aurangzeb in 1675.** • He was **renowned as a warrior, a poet, and a prophet.** • He is fondly remembered by Sikhs as a defender of the faith and a champion of equality and justice. • Among his notable contributions to Sikhism are founding the **Sikh warrior community called Khalsa in 1699.** • He introduced the **Five Ks, the five articles of faith that Khalsa Sikhs wear at all times. These are Kesh: uncut hair, Kangha: a wooden comb, Kara: an iron or steel bracelet worn on the wrist, Kirpan: a sword, and Kacchera: short breeches.** • He authored numerous literary works in various languages. Among his famous works are Jaap Sahib, the Tav-Prasad Savaiye, and the Benti Chaupai. • He further codified Sikh law, wrote martial poetry and music, and was the reputed author of the Sikh work called the **Dasam Granth ("Tenth Volume").** • Guru Gobind Singh proclaimed that he was the last of the personal Gurus. From that point forward, the Sikh Guru was to be the holy book, the **Guru Granth Sahib (Sikh Holy Book).**
Quadrantid meteor 	**Why in news?** • The world is all set to witness the first meteor shower of the year i.e Quadrantid Meteor in this month. **Key Points:** • The Quadrantid meteor shower occurs annually in **early January, with one of the most intense displays that peaks briefly for just a few hours.** • The name "Quadrantids" is derived from the **now-obsolete constellation Quadrans Muralis, which was named in 1795 by French astronomer JJ Lalande.**

	• The meteor shower was first observed in the **1830s** by Belgian astronomer Adolphe Quetelet. • The Quadrantids originate from the **northeast corner of the Boötes constellation.** • The Quadrantids are believed to have emerged from **asteroid 2003 EH1, which is thought to be a fragment of an extinct comet that broke apart around 1490-91.** • **What is a meteor?** ○ A meteor is a meteoroid that has entered Earth's atmosphere and is burning up due to the intense heat generated by friction with the air.

Production-Linked Incentive (PLI) scheme	**Why in news?**
	• The government is set to announce a new phase of the PLI scheme for the steel sector.
	
	Key Points:
	• The PLI scheme **was launched (in March, 2020) to boost India's domestic manufacturing base and enhance its global supply chain contribution.**
	• **Objective:** Covering 14 sectors, the scheme aims to create significant employment opportunities and drive industrial capital expenditure (capex).
	• Under the PLI scheme, eligible **companies receive financial incentives based on their incremental sales from products manufactured in India.**
	• These incentives encourage companies to **invest in upgrading their manufacturing capabilities, adopting modern technologies, and expanding their production capacities.**
	• **How is PLI different from other traditional subsidies?**
	  ○ Only limited sectors are eligible: The scheme has the potential to attract maximum investments and scale rapidly to provide the maximum returns in terms of incremental production, employment, and export.
	  ○ Time-bound pre-committed levels of investment and productions: Hence, cannot be called a subsidy scheme.
	  ○ Focus on supporting upcoming technologies: That can be commercialised at a large scale like advanced chemistry cell batteries, electronic and technology products.

Pradhan Mantri Matsya Sampada Yojana (PMMSY)	**Why in news?** • Union Minister Shri Rajiv Ranjan Singh inaugurated the **Northeastern States Meet on Pradhan Mantri Matsya Sampada Yojana (PMMSY) in Guwahati.** **Key Points:** • PMMSY was **launched in September 2020 with an aim to double the income of fish farmers and fishers in the country.** • It focuses on **sustainable development of India's fisheries sector and is a part of the Atmanirbhar Bharat scheme.**

	• The scheme focuses on activities with potential to generate employment such as **seaweed and ornamental fish cultivation.** It also emphasises on the breeding technique for quality brood, seed & feed and species diversification.
	• It is an **umbrella scheme with two separate Components namely (a) Central Sector Scheme (CS) and (b) Centrally Sponsored Scheme (CSS).**
	• **The CSS Component is further segregated into Non-beneficiary oriented and beneficiary orientated subcomponents/activities under the following three broad heads:**
	  ○ Enhancement of Production and Productivity
	  ○ Infrastructure and Post-harvest Management
	  ○ Fisheries Management and Regulatory Framework
	• PMMSY will be implemented in **all the States and Union Territories for a period of 5 (five) years from FY 2020-21 to FY 2024-25.**

Defence deal between India & France	**Why in news?**
	• Two major defense deals worth over $10 billion between India and France are nearing finalization.
	• They include the purchase of **26 Rafale-M fighter jets and three additional Scorpene-class submarines, with Prime Minister Modi expected to visit Paris in February for the AI Action Summit.**
	
	Key Points:
	• The Dassault Rafale is a **4.5 generation, twin-engine, delta wing, multirole fighter manufactured by the French company Dassault Aviation. It has a maximum speed of Mach 1.8 and a combat radius of 1000+ km.**
	• The Rafale has a sleek aerodynamic design with **optimum wing loading, low drag, and relaxed stability for enhanced maneuverability. The delta wing configuration offers a high lift-to-drag ratio.**
	• Key avionics equipment is the **RBE2 AESA radar, front sector optronics, discrete omnidirectional warning system, and the advanced SPECTRA electronic warfare system.**
	• It is powered by **2 SNECMA M88 turbofan engines, providing a dry thrust of 50 kN and 75 kN with afterburners.** This delivers supercruise (supersonic flight without afterburners) capability.
	• **Rafale Variants**
	  ○ **Rafale C**: The single-seat Air Force variant has 75% fleet availability and is designed for high mission reliability.
	  ○ **Rafale B:** The twin-seat variant for training and enhanced situational awareness. It retains the combat capabilities of the C model.
	  ○ **Rafale M:** The naval variant is optimized for carrier operations with a reinforced nose and tail and specially designed landing gear. It equips the French Navy's aircraft carrier, Charles de Gaulle.
	  ○ Additionally, **the Rafale N** is a dedicated nuclear strike variant, while the **Rafale R** is reserved for technology

	development. **About Scorpene Submarines:** ● They are **~220 feet long and ~40 feet tall and can reach the top speeds of 11 knots (20 km/h) when surfaced and 20 knots (37 km/h) when submerged.** ● They are **conventional attack subs, meaning that they are designed to target and sink adversary naval vessels.** ● Capable of launching a large array of torpedoes and missiles, they are also equipped with a range of surveillance and intelligence-gathering mechanisms. ● They use **diesel electric propulsion systems** [diesel (for functioning on the **surface**) and **electric (for functioning underwater)],** with an endurance - ability to operate independently without refueling for ~50 days. ● Some examples include **INS Kalvari, INS Khanderi, INS Karanj and INS Vela.**
World Bank Group	**Why in news?** ● The World Bank is poised to approve a **$20 billion indicative lending package for Pakistan,** a **10-year initiative** designed to safeguard its funded projects from political transitions. ● The package will focus on addressing **child stunting, combating learning poverty, improving climate resilience, and promoting private investment, among other priorities.** **Key Points:** ● The WB is an international financial institution that **provides loans and grants to the governments of low and middle-income/developing countries** for the purpose of pursuing capital projects. ● It was **established along with the IMF at the 1944 Bretton Woods Conference.** ● The WB is the **collective name for the International Bank for Reconstruction and Development (IBRD) and International Development Association (IDA), two of five international organisations owned by the WB Group.** ● **The WB Group, which is the parent organisation of the WB, includes IBRD: It provides loans, credits and grants.** ○ **IDA:** It provides low or no-interest loans to low-income countries. ○ **International Finance Corporation (IFC):**It provides investment, advice and asset management to private companies and governments. ○ **Multilateral Guarantee Agency (MIGA):** It insures lenders and investors against political risk such as war. ○ **International Centre for the Settlement of Investment Disputes (ICSID):** It settles investment-disputes between investors and countries.
Nanopore	**Why in news?**

technology	• Nanopore technology represented humanity's latest weapon in the ongoing battle against diseases. **Key Points:** • Nanopore technology **involves nano-scale holes embedded in a thin membrane, designed to detect changes in potential as charged biological molecules smaller than the nanopores pass through.** • This technology has the potential to sense and analyze individual molecules such as **amino acids, DNA, RNA, and more**. • It is an advanced method for **sequencing DNA and RNA by detecting changes in electrical conductivity** when molecules pass through a nanopore. • Compared to other sequencing technologies, nanopore-based sequencing is **more affordable, user-friendly, requires minimal computational and lab infrastructure, and only needs a small DNA sample for testing.** • Nanopore sequencing is the **only technology that provides real-time analysis in scalable formats, ranging from small to large-scale applications.** It can analyze native DNA or RNA and sequence fragments of any length, from short to ultra-long reads. • Additionally, nanopore technology allows for **targeted sequencing, focusing on specific genes or regions.**

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