31 October 2024
National and International News

India - China Agreement	**Why in news?**
	● Indian and Chinese troops have completed disengagement at Depsang and Demchok in Eastern Ladakh.
	
	Key Points:
	● In a significant diplomatic development, India and China held their first bilateral talks in five years on the sidelines of the **16th BRICS Summit in Kazan, Russia**, marking a crucial step towards mending the strained relations between the two neighboring countries, which have been marred by a prolonged military standoff along the Line of Actual Control (LAC) in eastern Ladakh.
	● The roots of the current standoff trace back to China's aggressive maneuvers along the **LAC in 2020**, which led to a prolonged military confrontation.
	● **Line of Actual Control (LAC)**
	  ○ The LAC is the **demarcation that separates Indian-controlled territory from Chinese-controlled territory.**
	  ○ **India considers the LAC to be 3,488 km long**, while the **Chinese consider it to be only around 2,000 km.**
	  ○ **It is divided into three sectors:**
	    ■ the eastern sector which spans Arunachal Pradesh and Sikkim;
	    ■ the middle sector in Uttarakhand and Himachal Pradesh,and;
	    ■ the western sector in Ladakh.
	● **Major friction points along the India-China border:**
	  ○ **Depsang Plains:** This area is located in the northernmost part of Ladakh and has seen incursions by Chinese troops in the past.
	  ○ **Demchok:** This area is located in eastern Ladakh and has seen disputes over the boundary between India and China.
	  ○ **Pangong Lake:** This area has been a major flashpoint between the two countries, with Chinese troops attempting to change the status quo on the LAC in the region.
	  ○ **Gogra and Hot Springs:** These two areas are located in eastern Ladakh and have seen standoffs between Indian and Chinese troops in recent years.

Core Sector Industries	**Why in news?** ● Output levels in India's eight core sectors, which represent about 40% of industrial production, declined, with the Index of Core Industries (ICI).

Key Points:
- The core sector in India comprises eight key industries: **coal, crude oil, natural gas, refinery products, fertilizers, steel, cement, and electricity.**
- Core sector growth **refers to the growth rate or the increase in output/production from the core industries of** an economy over a given period of time, typically measured on an annual or monthly basis.
- The core sector growth is calculated by combining the growth rates of these individual industries, using their respective weights in the overall Index of Core Industries (ICI)
- **Index of Eight Core Industries (ICI):**
  - The Index of Eight Core Industries (ICI) is prepared every month and **released by the Office of the Economic Adviser (OEA), Department for Promotion of Industry and Internal Trade (DPIIT), and Ministry of Commerce & Industry.**
  - The current weightage, of eight core industries is **Petroleum Refinery Products (28.04%)> Electricity (19.85%) > Steel (17.92%) > Coal (10.33%) > Crude Oil (8.98%) > Natural Gas (6.88%) > Cement (5.37%) > Fertilizer (2.63%).**
  - The choice of the base year of ICI is according to the **choice of base year for the IIP.**
  - The ICI is widely used by policymakers, including the **Ministry of Finance, other Ministries and Departments, Banks financing Infrastructure projects, the Reserve Bank of India (RBI), and the Railway Board.**

Air Quality Index (AQI)	**Why in news?**
	- On the eve of Deepavali, Delhi experienced a rise in air pollution recording 'very poor' air quality.
	
	Key Points:
	- The Air Quality Index (AQI) **monitors the concentration levels of the following eight significant air pollutants** in the atmosphere:
	  - Particulate Matter (PM10)
	  - Particulate Matter (PM2.5)
	  - Nitrogen Dioxide (NO2)
	  - Sulfur Dioxide (SO2)
	  - Carbon Monoxide (CO)
	  - Ozone (O3)
	  - Ammonia (NH3)
	  - Lead (Pb)
	- The National Air Quality Index consists of six distinct categories, each associated with specific health implications:
	  - **Good/ Safe (0-50):** Less Impact.
	  - **Satisfactory (51-100):** People who are sensitive may experience slight breathing difficulty.
	  - **Moderately Polluted (101-200):** Individuals with lung diseases, heart conditions, children, and the elderly may find

it difficult to breathe.

- ○ **Poor (201-300):** Long-term exposure might cause breathing pain and discomfort for people with heart disease.
- ○ **Very Poor (301-400):** Long-term exposure could lead to respiratory conditions.
- ○ **Severe (401-500):** Healthy individuals may encounter respiratory issues.

Anaemia Mukt Bharat (AMB) program	**Why in news?** ● The Indian Council of Medical Research (ICMR) is seeking Expressions of Interest (EoI) from qualified organizations, companies, and start-ups to develop a "non-invasive/minimally invasive hemoglobinometer." ● This device aims to support the detection of anemia, a critical health priority within the Anaemia Mukt Bharat (AMB) program. **Key Points:** ● In 2018, the Government of India launched the AMB strategy with the target to reduce anemia in the vulnerable age groups such as **women, children and adolescents.** ● AMB is based on a **life cycle approach**, providing preventive and curative mechanisms through a **6X6X6 strategy including six target beneficiaries, six interventions and six institutional mechanisms** for all stakeholders to implement the strategy. ● Anemia is a condition in which the **number of red blood cells or their oxygen-carrying capacity is insufficient to meet physiological needs**, which vary by age, sex, altitude, smoking, and pregnancy status. ● According to the World Health Organization (WHO), **women in the reproductive age group and having hemoglobin levels lower than 12 grams per decilitre (g / dL), as well as children under five with hemoglobin levels lower than 11.0 g / dL are considered anemic.** **Discuss:** ● About **ICMR**

Rafale Fighter Jets

RAFALE SPECIFICATIONS

- Max. take-off weight **24.5 TONNES**
- Height **5.30 M**
- External load **9.5 TONNES**
- Wing span **10.90 M**
- Fuel (internal) **4.7 TONNES**
- Fuel (external) **UP TO 6.7 TONNES**
- Length **15.30 M**
- Ferry Range **3,700 KM**
- Overall empty weight **10 TONNES**
- Landing ground run **450 M (1,500 FT)**
- Top Speed **1.8 MACH AT HIGH ALTITUDE**
- Service ceiling **50,000 FT**

Why in news?

- The government is considering a new procurement model for multi-role fighters.
- This comes as the Air Force urgently needs new fighter jets to address its declining squadron strength, especially in light of the controversy surrounding the acquisition of 36 Rafale aircraft.

Key Points:

- The **Dassault Rafale is a versatile 4.5 generation multirole combat aircraft** serving as the backbone of the French Air Force and Navy.
- **India signed an agreement with France in 2016** for the swift **procurement of 36 Rafales to augment the Indian Air Force's depleting fighter squadrons.**
- **Aerodynamic Design:** 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.
- **Engine and Performance:** 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.
- **Customisations for India:**
  - **Integration of Israeli Helmet Mounted Display** providing missile targeting via line of sight.
  - **Israeli jammers and radar warning receivers** to enhance survivability against missiles.
  - **Custom cold start capability** allows Rafale to operate from high-altitude bases like Leh on short notice.
  - **Installation of India's BrahMos cruise missile** for maritime strike capability.
  - **Integration with India's Astra and Brahmos-NG air-to-air missiles** for enhanced air combat edge.
  - **Expanded data and voice communications** via Indian satellite networks and avionics.
  - **Compatibility with Indian systems like AWACS and aerial refueling tankers**.