

MANTHAN

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1. Sudan says plan for first Russian naval base in Africa will go ahead

- Sudan has confirmed that Russia's plan to establish its first naval base in Africa will proceed after years of delays.
- Sudan's Foreign Minister Ali Youssef Ahmed al-Sharif, during his visit to Moscow, assured his Russian counterpart, Sergei Lavrov, that both countries were in full agreement on the base's establishment.
- If implemented, this move will place Russia alongside the US and China, which have bases in Djibouti, giving it strategic access to the Red Sea, a crucial global trade route linking the Suez Canal to the Indian Ocean.
- The origins of this agreement date back to 2017, when former Sudanese President Omar al-Bashir proposed hosting a Russian naval facility.
- A deal was finalized in 2020, allowing Russia to station up to four naval vessels, including nuclear-powered ships, in Sudan for 25 years.
- Initially, the base was described as a logistical, non-aggressive facility. However, Sudan's military and civilian leaders delayed its implementation due to disagreements over terms.
- The situation worsened with Sudan's civil war, which erupted in April 2023 between the army and the paramilitary Rapid Support Forces (RSF). Russia played both sides, with the Wagner Group backing the RSF while the Kremlin supported Sudan's army.
- Following the death of Wagner leader Yevgeny Prigozhin, the Kremlin deepened its ties with the Sudanese army.
- In April 2023, Russia's Deputy Foreign Minister, Mikhail Bogdanov, pledged unconditional support to Sudan's military.
- Additionally, Russia has backed Sudan at the UN Security Council, vetoing a ceasefire resolution for humanitarian aid, a move criticized by the UK.
- With recent battlefield successes, Sudan's army, led by General Abdel Fattah al-Burhan, is confident of defeating the RSF, whose leaders face US accusations of genocide.
- The US has imposed sanctions on Burhan for prioritizing war over negotiations.
- Meanwhile, Sudan is grappling with a severe humanitarian crisis, hosting the world's largest internally displaced population amid fears of famine.
- Russia's renewed push for a Sudanese base also comes as its influence in the Middle East faces uncertainty, especially after the recent overthrow of Bashar al-Assad in Syria, which casts doubt on the future of Russia's Tartus naval base in the Mediterranean.
- This development strengthens Russia's military presence in Africa and the Red Sea region, highlighting geopolitical shifts and the broader implications of the Sudanese civil war on global security and trade.

Naval bases in Africa

- Naval bases in Africa are operated by various countries, including African nations and foreign powers. These bases are strategically located along key maritime routes and serve purposes such as counter-piracy, maritime security, and power projection.

1. African Nations' Naval Bases

- Several African nations maintain naval bases along their coasts, including:
 - **Egypt:** Alexandria Naval Base, Port Said Naval Base, Ras el-Tin Naval Base.

- **South Africa:** Simon's Town Naval Base (primary base).
- **Nigeria:** Western Naval Command (Lagos), Eastern Naval Command (Calabar), Central Naval Command (Yenagoa).
- **Kenya:** Mtongwé Naval Base (Mombasa).
- **Algeria:** Mers El Kebir, Algiers Naval Base.
- **Morocco:** Casablanca Naval Base.

2. Foreign Naval Bases in Africa

- Several non-African countries maintain military and naval bases in Africa, particularly in Djibouti and the Gulf of Guinea.
- **Djibouti (Strategic Hub for Foreign Navies)**
 - **United States:** Camp Lemonnier (primary US military base in Africa, used by the Navy and Air Force).
 - **China:** PLA Support Base (first overseas Chinese military base, opened in 2017).
 - **France:** French Naval Base in Djibouti (part of France's broader military presence).
 - **Japan:** Japanese Self-Defense Forces Base (Japan's only overseas military base, used for anti-piracy operations).
 - **Italy:** Italian Military Support Base (supports Italian naval and counterterrorism operations).
 - **European Union (EUNAVFOR):** Operates naval missions in Djibouti and the Horn of Africa.
- **Other Foreign Naval Bases in Africa**
 - **Russia:** Plans to establish a naval base in Port Sudan on the Red Sea (agreements with Sudan since 2020).
 - **United Kingdom:** RAF Akrotiri and Dhekelia (Cyprus, used for African and Middle Eastern operations).
 - **Turkey:** Turkish Military Training Facility in Somalia (supports Somali naval and military forces).

Suez Canal

- The Suez Canal is one of the world's most important waterways, connecting the Mediterranean Sea to the Red Sea, allowing ships to bypass the long and hazardous journey around the southern tip of Africa.
 - **Location:** Egypt
 - **Length:** Approximately 193 km (120 miles)
 - **Opened:** November 17, 1869
 - **Constructed by:** French engineer Ferdinand de Lesseps
 - **Ownership & Control:** Managed by the Suez Canal Authority (SCA), Egypt
 - **Importance:** One of the busiest trade routes, facilitating about 12% of global trade
 - **Traffic:** Primarily used for the transportation of oil, natural gas, and goods between Europe, Asia, and Africa

Historical Significance

- Originally conceived in ancient times, the modern Suez Canal was built in the 19th century with the help of French and Egyptian labor.
- Nationalized in 1956 by Egyptian President Gamal Abdel Nasser, leading to the Suez Crisis involving the UK, France, and Israel.
- Has undergone several expansions, with the most recent Suez Canal expansion project (2015) allowing for increased ship capacity.

Recent Developments

- The canal gained global attention in March 2021 when the Ever Given, a massive container ship, got stuck and blocked the waterway for six days, causing major disruptions to global trade.
- Plans for further expansion and deepening are ongoing to prevent similar incidents and accommodate larger vessels.

QUESTIONS

Solve the multiple choice questions:

1. Which of the following statements about foreign naval bases in Africa is MOST accurate?
 - A. China's PLA Support Base in Djibouti was established primarily to counter NATO influence in the Horn of Africa.
 - B. Japan's military presence in Africa is primarily focused on counterterrorism operations rather than maritime security.
 - C. Russia currently operates a functional naval base in Sudan under agreements signed in 2020.
 - D. Djibouti hosts multiple foreign naval bases due to its strategic location near critical global shipping routes.
2. The Suez Canal is an artificial sea-level waterway in Egypt, connecting the _____.
 - A. Indian Ocean to the Red Sea through the Isthmus of Suez
 - B. Atlantic Ocean to the Red Sea through the Isthmus of Suez
 - C. Mediterranean Sea to the Red Sea through the Isthmus of Suez
 - D. Arabian Sea to the Red Sea through the Isthmus of Suez

2. PM Modi visits war cemetery in France: What role did Indian soldiers play in World Wars?

- Prime Minister Narendra Modi and France President Emmanuel Macron paid tribute to fallen Indian soldiers at the Mazargues War Cemetery in Marseille.
- The cemetery commemorates 1,487 soldiers who fell during World War I (1914-18), and 267 from World War II (1939-45), a majority of whom — 998 — were Indians fighting for the British.
- The Mazargues Indian Memorial was unveiled by British Field Marshal Sir William Birdwood in July 1925.
- More than four million Indian troops fought in the British Army during the two World Wars. Their contributions were pivotal, even though they are seldom remembered, whether in Europe or in India.

World War I: fighting in faraway lands

- World War I pitted the Allied Powers (including Britain, France, and Russia) against the Central Powers (including Germany, Austro-Hungary, and the Ottoman Empire).

- The bulk of the fighting took place in Europe and West Asia, and European powers fighting each other, their colonies too became involved, supplying men, material, and money.
- More than 4 million colonial troops fought in the War, mostly for France and Britain.
- This included some 1.3 million Indian soldiers, of whom more than 74,000 lost their lives and a comparable number were seriously wounded.
- Often ill-equipped and under-prepared against an enemy they did not necessarily understand, Indian soldiers bore the brunt of Germany's initial offensives along the Western Front in 1914, at a time when British conscription was still in its early stages and the professional British Expeditionary Force was in tatters.
- Indian soldiers defended the Ypres Salient in Belgium from the advancing Germans, suffering major casualties in the process. In the Battle of Neuve-Chapelle, Indians suffered more than 4,000 casualties for next to no strategic gains.
- By 1915, however, Britain had removed most Indian troops from Europe. Historian Richard Fogarty wrote in *Race and war in France* (2008), this was because "British authorities were concerned about the effect of pitting non-Whites against white Europeans in battle."
- Indians with such experience might be more difficult to rule after the war."
- This meant that roughly a million Indian troops eventually ended up in the West Asian theatre, fighting the Ottomans.
- In Gallipoli, more than a 1,000 Indian lives were lost in Winston Churchill's doomed campaign to take control of the Turkish straits. Of note during the campaign was the role of Indian mule drivers, who kept intact supply lines despite suffering major losses.

World War II: a truly global fight

- Although World War I was supposed to be "the War to end all wars" a bigger conflict broke out only a couple of decades later. This time, the Allies (including Britain, the US, and the USSR) were up against the Axis Powers (including Germany, Japan, and Italy).
- Unlike the Great War, WWII was truly global — from the Pacific islands to much of East and Southeast Asia to North Africa and much of Europe, fighting even more geographically spread out. This meant that even more troops and resources were needed, compared to the previous war, and once again, Europe turned to its colonies for help.
- The War broke out at a time when fervent national movements were raging across Asia and Africa. Like during the Great War, the British promised self-governance once the War ended in return for Indian support. Nearly 3 million Indian troops went on to serve during the war, with approximately 87,000 dying in combat.
- However, unlike in the Great War, the majority of Indian soldiers in combat roles were deployed in Asia, to defend against the Japanese advance towards the Indian subcontinent. Japanese forces had conquered Burma by 1943, and reached as far as Kohima and Imphal from where they were driven back in 1944 by the British Indian Army consisting largely of Indian and Nepali Gurkha troops.
- There are many stories of immense bravery displayed by Indian soldiers during the campaigns in Northeast and Burma.
- For instance, Gurkha rifleman Lachhiman Gurung received the Victoria Cross for single-handedly repelling an attack of more than 200 Japanese infantrymen in Burma, despite suffering multiple life-threatening injuries and losing an arm.
- British Indian soldiers also played a crucial role in Europe, at times in the frontlines but more often in support and logistics roles. Mechanised transport was still not extremely reliable during WWII, and War-driven shortages in material meant that mules became a cost-effective means to lug heavy loads. Indian soldiers excelled in the handling of animals, and formed the backbone of logistics operations in Europe.

Forgotten heroes

- Despite their pivotal contributions, Indian soldiers are not nearly as important a part of the public memory of the two World Wars as they should be. There are multiple reasons for this.
- First is the racism that was pervasive at the time of the wars, and has continued to shape how history has been written ever since. Put simply, most narratives of the World Wars are extremely Eurocentric, and even when the colonies contributions are remembered, White soldiers — like the Australian and New Zealander Anzacs in Gallipoli — get far more attention than Black and Brown troops.
- Third, and perhaps the most important, Indian troops fighting in the World Wars have never received much attention at home. This is because they do not easily fit into the nationalist narrative that has been central to how India remembers its colonial past — unlike say Netaji Subhas Chandra Bose's Azad Hind Fauj which was fighting British Indian troops in the Northeast.

QUESTIONS

Solve the multiple choice questions:

3. Which of the following BEST explains why Britain withdrew most Indian troops from Europe by 1915 during World War I?
 - A. Indian soldiers were unable to cope with the harsh European winters, leading to high casualty rates.
 - B. The British feared that allowing non-White soldiers to fight against White Europeans might undermine colonial rule in India.
 - C. The Ottoman Empire posed a greater threat to Britain in West Asia, necessitating the redeployment of Indian troops.
 - D. British soldiers had gained sufficient experience and reinforcements from the British Empire had made Indian troops redundant in Europe.
4. Which of the following accurately differentiates the role of Indian troops in World War I and World War II?
 - A. Indian troops were primarily deployed in Europe during WWI but were largely engaged in the Asia-Pacific theater during WWII.
 - B. Indian troops fought in defensive positions in WWI, whereas they played an offensive role in WWII.
 - C. In WWI, Indian troops were limited to support roles like supply chain management, while in WWII, they were deployed in front-line combat.
 - D. Indian troops served in greater numbers in WWI compared to WWII.

3. India To Host Next Global Summit: PM Modi At Paris AI Action Summit

- Prime Minister Narendra Modi announced that India will host the next Global AI Summit, following discussions at the AI Action Summit in Paris.
- The summit, co-chaired by PM Modi and French President Emmanuel Macron, focused on fostering global cooperation in the development of Artificial Intelligence (AI) technologies.

- During his concluding address, PM Modi welcomed the establishment of the “AI Foundation” and the “Council for Sustainable AI,” lauding France and President Macron for their leadership in these initiatives.
- He assured India’s full support for these efforts and emphasized the need for inclusivity in the Global Partnership for AI, urging it to better reflect the priorities of the Global South.
- To build on the momentum of the summit, he proposed that India host the next edition of the event.
- Highlighting India’s advancements in AI, PM Modi underscored the country’s efforts to develop its own Large Language Model tailored to its diverse linguistic and cultural landscape. He also elaborated on India’s unique public-private partnership model, which pools computational resources to support start-ups and researchers at affordable costs. He expressed India’s willingness to share its expertise to ensure AI serves the greater good.
- PM Modi praised the AI Action Summit in Paris as a valuable platform that brought together world leaders, policymakers, innovators, and young minds to engage in meaningful discussions about AI. He reaffirmed that while AI is a transformative technology, it should remain a tool for human progress rather than a force that surpasses human intelligence and responsibility. Addressing concerns about machines potentially becoming superior to humans, he emphasized that the future remains in human hands and must be guided by a strong sense of responsibility.
- Held at the Grand Palais in Paris, the summit gathered global leaders, experts, and innovators to shape the responsible development and application of AI.
- The event underscored the importance of international collaboration in AI governance, ethical considerations, and technological advancements. PM Modi’s remarks highlighted India’s proactive role in AI innovation, its commitment to equitable AI development, and its vision for a future where AI serves humanity responsibly.
- By committing to host the next Global AI Summit, India reaffirmed its leadership in the global AI discourse and its dedication to ensuring AI remains inclusive, ethical, and beneficial for all.

Global South

- The Global South is a term used to describe countries primarily in Latin America, Africa, Asia, and Oceania that share common economic and developmental challenges. It often refers to nations that are historically marginalized in global economic and political structures, in contrast to the Global North, which includes industrialized and wealthier nations like the U.S., Canada, Europe, and parts of East Asia (Japan, South Korea).

Characteristics of the Global South

- **Economic Development:** Many countries face economic challenges, including lower GDP per capita and high levels of poverty.
- **Colonial Legacy:** Many nations were former colonies, which has affected their political and economic structures.
- **Industrialization Levels:** Compared to the Global North, industrialization is lower, though some countries like India, China, and Brazil have emerged as major economies.
- **Political Influence:** While traditionally less influential in global governance, organizations like BRICS, the G77, and the Non-Aligned Movement (NAM) have strengthened their global voices.
- **Climate Vulnerability:** Many Global South nations are disproportionately affected by climate change due to geographic and economic vulnerabilities.
- **Demographic Trends:** These countries often have younger populations and higher birth rates compared to the aging populations of the Global North.

Recent Developments

- **Economic Shifts:** Emerging economies like China and India are reshaping global trade, challenging traditional power structures.
- **Geopolitical Influence: The Global South is increasingly asserting itself in** institutions like the United Nations, G20, and World Trade Organization (WTO).
- **Sustainable Development Goals (SDGs):** Many Global South countries are at the forefront of discussions on sustainable development, energy transition, and equitable economic policies.
- **South-South Cooperation:** Countries are collaborating on trade, technology transfer, and diplomacy without dependence on the Global North.

Future of AI in India

- The future of AI in India looks incredibly promising, with significant advancements across multiple sectors. Here are some key trends shaping India's **AI-driven future**:

1. AI in Governance and Public Services

- Initiatives like BharatGen aim to develop India's own generative AI models for public service delivery, enhancing governance efficiency.
- AI-powered chatbots and platforms will improve citizen engagement, automate bureaucratic processes, and enhance digital inclusion.

2. AI in Healthcare

- The government has announced three Centres of Excellence (CoE) in AI, with one focused on healthcare, led by AIIMS, IIT Delhi, and IIT Ropar.
- AI is being used for early disease detection, predictive analytics, and robotic surgeries.
- Startups are developing AI-powered diagnostics to address rural healthcare challenges.

3. AI in Agriculture

- The National Agriculture Code (NAC) will standardize AI applications for precision farming, weather forecasting, and crop disease detection.
- AI-driven supply chain management will reduce food wastage and increase farmer income.

4. AI in Education

- Medha AI, India's first teacher-assistive AI, is transforming education, particularly in rural areas.
- AI-powered personalized learning platforms will help students learn at their own pace.
- AI-driven language models will promote multilingual education and bridge learning gaps.

5. AI in Finance and Banking

- AI-based fraud detection and risk assessment are strengthening India's financial ecosystem.
- The NextGen digital platform by LIC, developed in collaboration with Infosys, will enhance AI-driven customer services.

6. AI in Manufacturing and Defense

- AI is key to India's Atmanirbhar Bharat (self-reliant India) initiative, particularly in semiconductor manufacturing and automation.
- AI-powered drones and surveillance systems are enhancing national security.

7. AI in Climate and Sustainability

- AI is playing a role in weather modeling and climate forecasting, with high-power computing systems like Arka and Arunika aiding research.
- AI-driven smart grids and energy management will support India's transition to renewable energy.

8. AI in Entertainment and Creativity

- AI is being used in filmmaking, music, and content creation.
- India's official Oscar entry 'Laapataa Ladies' reflects the growing role of AI in film editing and production.

Challenges and Ethical Concerns

- Data privacy and security remain major concerns.
- Need for AI regulations to prevent bias, misinformation, and ethical misuse.
- Skill gap in AI-related jobs needs to be addressed through upskilling programs.

QUESTIONS

Solve the multiple choice questions:

5. What is the primary objective of India's proposal to host the next Global AI Summit?
 - A. To establish India as the global leader in AI ethics and regulation
 - B. To ensure AI development aligns with the priorities of the Global South
 - C. To create an AI-centric economic bloc with France and other European nations
 - D. To introduce a regulatory framework that restricts AI applications globally
6. What was the significance of the AI Foundation and the Council for Sustainable AI, as mentioned in the summit?
 - A. They are Indian-led initiatives to promote AI innovation in South Asia
 - B. They were established by France and endorsed by PM Modi as crucial for global AI governance
 - C. They are new branches of the United Nations focusing on AI regulation
 - D. They are research institutions based in the U.S. and the European Union

4. 3rd edition of Joint Special Forces Exercise CYCLONE

- The 3rd edition of Joint Special Forces Exercise CYCLONE commenced at Mahajan Field Firing Ranges in Rajasthan.
- The exercise is being conducted from 10th to 23rd February 2025. Exercise CYCLONE is an annual event conducted alternatively in India and Egypt. Last edition of the same exercise was conducted in Egypt in January 2024.
- The Indian contingent comprising 25 personnel will be represented by troops from two Special Forces Battalions.
- Egypt contingent also comprising 25 personnel will be represented by Special Forces Group and Task Force of Egyptian Special Forces.
- Aim of Exercise CYCLONE is to promote military to military relationship between the two countries through enhancement of interoperability, jointness and mutual exchange of special operations tactics. The exercise will focus on high degree of physical fitness, joint planning and joint tactical drills.
- Drills/aspects to be rehearsed during the exercise will include advanced special forces skills and various other tactics, techniques and procedures as per the current operational paradigm.

- The exercise will culminate in a 48-hour long validation exercise to rehearse and validate the tactical drills for counter terrorism operations in desert/ semi-desert terrain. The exercise will also include a display of indigenous military equipment and an overview of the defence manufacturing industry for the Egyptian side.
- Exercise CYCLONE will enable the two sides to share their best practices in tactics, techniques and procedures of conducting tactical operations. The exercise will also facilitate developing bonhomie and camaraderie between soldiers of both the sides.

Joint Military Exercises By India

- India conducts a variety of joint military exercises with multiple countries, reflecting its commitment to strengthening defense cooperation, enhancing interoperability, and improving operational readiness. These exercises span across all three branches of the Indian Armed Forces—Army, Navy, and Air Force—and are categorized based on the participating nations and specific operational objectives.

Bilateral Exercises

- **Yudh Abhyas** – Conducted annually with the United States, focusing on counterterrorism, peacekeeping operations, and high-altitude warfare.
- **Vajra Prahar** – A specialized Indo-US joint military drill that concentrates on Special Forces operations.
- **Mitra Shakti** – A joint exercise with Sri Lanka aimed at enhancing counter-insurgency and counter-terrorism capabilities.
- **Sampriti** – A collaborative Indo-Bangladesh military exercise focused on tactical and strategic joint operations.
- **Nomadic Elephant** – A bilateral exercise with Mongolia, emphasizing jungle warfare and counter-insurgency training.
- **Garuda Shakti** – Conducted with Indonesia, focusing on military cooperation and counterterrorism strategies.
- **Shakti** – A biennial joint exercise with France aimed at enhancing interoperability between the two armies in counter-insurgency and counterterrorism operations.
- **Ekuverin** – A military exercise with the Maldives, primarily centered on counterterrorism and amphibious operations.
- **Surya Kiran** – Conducted with Nepal, emphasizing disaster response, humanitarian assistance, and counter-insurgency operations.
- **Dharma Guardian** – A joint military exercise with Japan aimed at improving bilateral defense cooperation and counterterrorism operations.

Multilateral and Naval Exercises

- **Malabar** – A trilateral naval exercise involving India, the US, and Japan (with Australia as a regular participant since 2020), focusing on maritime security, anti-submarine warfare, and strategic interoperability.
- **Milan** – A multilateral naval exercise hosted by India, involving several Indo-Pacific and ASEAN nations, aimed at fostering regional maritime cooperation.
- **Varuna** – A joint naval exercise between India and France, enhancing maritime domain awareness and high-end operational coordination.
- **SIMBEX** – Conducted with Singapore, focusing on anti-submarine warfare and complex naval maneuvers.
- **JIMEX** – A naval exercise with Japan, emphasizing interoperability and joint maritime operations.
- **SLINEX** – A bilateral naval exercise between India and Sri Lanka, aimed at improving maritime security and counter-piracy capabilities.

Air Force Exercises

- **Garuda** – A joint Indo-French air force exercise that enhances operational coordination and air defense capabilities.

- **Indradhanush** – A bilateral air force drill with the United Kingdom, focusing on advanced combat maneuvers and joint air operations.
- **Cope India** – A collaborative Indo-US air exercise, emphasizing aerial combat strategies, interoperability, and surveillance techniques.
- **Desert Knight** – Conducted with the French Air and Space Force, aimed at enhancing joint operational capabilities.

Tri-Service Exercises

- **Indra** – A tri-service military exercise with Russia, covering land, air, and naval operations with an emphasis on counterterrorism and defense collaboration.
- **Tiger Triumph** – A joint India-US tri-service exercise focusing on humanitarian assistance and disaster relief operations.
- These joint military exercises reflect India's growing strategic partnerships and its commitment to maintaining regional and global security through cooperative military engagements.

QUESTIONS

Solve the multiple choice questions:

- Which of the following statements accurately differentiates the nature of India's bilateral and multilateral military exercises?
 - Bilateral exercises focus exclusively on counterterrorism operations, whereas multilateral exercises are centered on maritime security and anti-piracy.
 - Bilateral exercises are typically focused on specific military training objectives, whereas multilateral exercises emphasize strategic cooperation and regional security.
 - Multilateral exercises primarily involve India's Air Force, while bilateral exercises are limited to the Army and Navy.
 - Bilateral exercises are conducted with only neighboring countries, while multilateral exercises involve global partners.
- Which of the following exercises is the most strategically significant for India's Indo-Pacific naval dominance?
 - SIMBEX – India-Singapore naval exercise
 - SLINEX – India-Sri Lanka naval exercise
 - Malabar – India-US-Japan-Australia naval exercise
 - JIMEX – India-Japan naval exercise

5. Panchayati Raj Devolution Index 2024: Karnataka Tops, UP And Tripura Show Remarkable Improvement

- Union Minister of State for Panchayati Raj and Fisheries, Animal Husbandry and Dairying, Prof. SP Singh Baghel launched the newest Panchayat Devolution Index 2024.

- The report, drawn up by the Indian Institute of Public Administration (IIPA), grades states and Union Territories (UTs) according to their initiative in strengthening Panchayati Raj Institutions (PRIs) through devolution of functions, finances, and administrative powers.
- In a significant jump, Uttar Pradesh has moved from 17th to 5th position, being the top performer in providing accountability in Panchayati governance. Tripura, having risen from 14th to 7th position, performed well in facilitating Panchayats to raise revenue and obtain Finance Commission grants.
- “In Uttar Pradesh, they have carried out large-scale recruitment, improved physical infrastructure, and strengthened accountability. Due to these factors, UP’s ranking has improved.”
- He added, “No state should use lack of funds as an excuse, because here, funds are allocated fairly. So, no one can claim they are receiving less than they deserve. The real issue is state priorities, many times, funds are misused in unnecessary schemes. Sometimes, even the Prime Minister’s schemes are blocked at the state level, and welfare programs get renamed for political reasons. Some states even refused to implement Ayushman Bharat, and as a result, we saw people suffering and dying. If a state introduces its own scheme, then this Rs 5 lakh health coverage from Ayushman Bharat could have been an additional benefit. This Rs 5 lakh assistance can be life-saving, especially for severe health issues like transplants and other medical emergencies.”

Karnataka Leads, Kerala and Tamil Nadu Follow

- The index measures six important dimensions of Panchayat governance: framework, functions, finances, functionaries, capacity building, and accountability. Karnataka topped the list with the best overall implementation of these dimensions.

Other top-ranking states include

- Karnataka – Best overall performer
- Kerala – Second place
- Tamil Nadu – Third place
- Maharashtra – Fourth place
- Uttar Pradesh – Fifth place (significant improvement)
- Uttar Pradesh Takes the Lead in Accountability, Tripura Scores High on Revenue Collection
- Uttar Pradesh has improved its accountability framework substantially since the last review, especially in the areas of transparency, anti-corruption, and timely publication of accounts and audits. This development is an indication of improved governance and financial management in PRIs.
- Tripura, however, has concentrated on generating revenues and has made significant strides in enabling Panchayats to levy and collect taxes. The state has also ensured improved use of Finance Commission grants, resulting in enhanced financial autonomy in rural administration.

Importance of the Report in Enhancing Panchayati Raj

- Addressing the gathering, Ministry of Panchayati Raj Additional Secretary Sushil Kumar Lohani referred to the report as an important milestone towards quantifying decentralisation progress under the 73rd Constitutional Amendment. He underscored that a robust Panchayati Raj system has a direct bearing on rural services like education, health, and infrastructure.

Consistent Progress in Panchayat Administration

- The report brings to the fore that the total devolution of powers to Panchayats has risen from 39.9% during 2013-14 to 43.9% in 2021-22.

Improvements on key areas include

- Launch of Rashtriya Gram Swaraj Abhiyan (RGSA) on April 21, 2018, increasing capacity-building from 44% to 54.6%.
- Government initiatives towards improving physical infrastructure and appointing officials for PRIs, contributing to a high increase in the functionaries index from 39.6% to 50.9%.

Report Released at IIPA Event

- The Panchayat Devolution Index 2024 was released at a formal function organised at the IIPA, New Delhi. The launch was followed by a screening of the short documentary on the Devolution Index. The function was graced by senior Ministry of Panchayati Raj officials and IIPA faculty.

Measuring the Self-Reliance of Local Bodies

- The report is consistent with Article 243G of the Constitution, where state legislatures are required to devolve power to Panchayats over 29 items in the Eleventh Schedule. The Panchayat Devolution Index compares states according to the success they have had in making local governments autonomous and self-sufficient.
- To further inspire empowerment, the Ministry of Panchayati Raj annually ranks states and UTs using an evidence-based method to compare their performance.

Assessment Based on Six Key Dimensions

- The Devolution Index 2024 assesses Panchayati Raj performance on six key pillars:
 - Framework – Legal and institutional framework for PRIs.
 - Functions – Level of powers and responsibilities devolved to Panchayats.
 - Finances – Fiscal independence, revenue collection, and fund allocation.
 - Functionaries – Presence of trained personnel and infrastructure.
 - Capacity Building – Training initiatives and institutional strengthening.
 - Accountability – Transparency, audit, and public participation features

Why the Devolution Index Matters

- Panchayat Devolution Index is a key indicator of monitoring the advancement of local self-governance in India. It is useful for several purposes:
 - Strengthens Local Self-Governance – Facilitates states to pinpoint areas of improvement.
 - Encourages Best Practices – Fosters policy innovation and reform.
 - Enhances Transparency – Offers the public information regarding Panchayat performance.
 - Supports Decision-Making – Aids elected representatives and officials in planning policies.
 - Guides Policymakers – Assists government departments in evaluating governance trends and enhancing devolution plans.

The Road Ahead for Panchayati Raj

- Even though the report indicates some progress, several states remain behind in completely empowering Panchayats. In order to overcome this deficiency, the report suggests:
 - Creation of a Consolidated Fund for Local Governments – Facilitating timely and direct transfers of funds.
 - Increased Taxation Powers for Panchayats – Enhancing revenue collection systems.
 - Regular Elections and Audits – Enhancing transparency and governance at the grassroots level.

- Expansion of Digital Governance – Facilitating platforms such as e-Gram Swaraj for real-time monitoring of activities and funds.

QUESTIONS

Solve the multiple choice questions:

9. What is the primary objective of the Panchayat Devolution Index 2024?
 - A. To assess the fiscal independence of Panchayats in generating their own revenue.
 - B. To rank states and Union Territories based on their devolution of powers to Panchayati Raj Institutions (PRIs).
 - C. To evaluate how effectively states utilize central funds in rural development projects.
 - D. To measure the impact of Gram Panchayats on local political participation.
10. Why did Karnataka rank the highest in the Panchayat Devolution Index 2024?
 - A. It implemented the highest percentage of direct cash transfers to Panchayats.
 - B. It achieved the best overall implementation of all six key governance dimensions.
 - C. It had the largest number of elected Panchayat members and representatives.
 - D. It had the highest proportion of rural development funds allocated to PRIs.

6. Scientists discover 'Einstein ring' around nearby galaxy

- The European Space Agency's (ESA) Euclid space telescope has discovered a rare ring of light, known as an Einstein ring, around a galaxy nearly 590 million light-years away from Earth.
- Photos, which were taken by Euclid in September 2023 but released of the Einstein ring show a bright ball of light in the centre with a bright, cloudy ring around it.
- The ring was discovered around NGC 6505, a galaxy that was first found in the 19th Century.

What is an Einstein ring?

- An Einstein ring is a ring of light around a form of dark matter, galaxy or cluster of galaxies.
- It is essentially an example of gravitational lensing. Gravitational lensing is a phenomenon which occurs when a massive celestial body — such as a galaxy or cluster of galaxies — creates a gravitational field which distorts and amplifies the light from distant galaxies that are behind it but in the same line of sight, according to a report on the website of National Aeronautics and Space Administration (NASA).
- The body causing the light to curve is called a gravitational lens.
- In the case of the recently discovered Einstein ring, NGC 6505 was the gravitational lens.
- The nearer galaxy distorted and amplified the light coming from a distant unnamed galaxy, located 4.42 billion light-years away. A light-year is the distance light travels in one year, which is 9.46 trillion kilometres.
- Einstein rings are named after mathematician and physicist Albert Einstein, whose general theory of relativity predicted that light could bend and brighten around objects across the cosmos.

- The first Einstein ring was discovered in 1987, and since then, several more have been discovered.
- However, it remains unclear how many such rings exist. Notably, they are extremely rare — less than 1% of galaxies have an Einstein ring, according to experts.
- Einstein rings are not visible to the naked eye, and can be observed only through space telescopes such as Euclid.

Why do scientists study Einstein rings?

- These rings help scientists investigate dark matter, which has never been detected but is believed to make up 85% of the total matter in the universe.
- “This dark matter does not interact with light, but it does have a gravitational effect... Gravitational lensing therefore is sensitive to the presence of this dark matter, allowing us to indirectly detect it.
- Moreover, Einstein rings enable scientists to learn about distant galaxies, which otherwise might not be visible. They can also provide information about the expansion of the universe as the space between the Earth and other galaxies — both in the foreground and the background — is stretching, according to NASA.

Euclid Mission

- The Euclid Mission is a space telescope launched by the European Space Agency (ESA) on July 1, 2023, with significant contributions from NASA.
- The mission aims to study dark matter and dark energy, which make up about 95% of the universe but remain largely mysterious.

Euclid

- **Objective:** To create a 3D map of the universe by observing billions of galaxies up to 10 billion light-years away.

Instruments

- **Visible Imaging Channel (VIS):** Captures high-resolution images of galaxies.
- **Near-Infrared Spectrometer and Photometer (NISP):** Measures the redshift of galaxies to determine their distance.
- **Orbit:** Euclid operates from the Sun-Earth Lagrange Point 2 (L2), about 1.5 million km (1 million miles) from Earth.
- **Duration:** The mission is expected to last six years.

Role of NASA

- Provided infrared detectors for Euclid’s NISP instrument.
- Helps in data processing and analysis through its NASA Euclid Science Coordination Office.

Dark matter

- Dark matter is an unknown and invisible form of matter that makes up about 27% of the universe’s mass-energy content, yet it does not emit, absorb, or reflect light, making it undetectable by conventional telescopes. Scientists infer its existence due to its gravitational effects on visible matter, such as galaxies and galaxy clusters.

Evidence for Dark Matter

- **Galaxy Rotation Curves:** Stars in galaxies rotate at unexpectedly high speeds, suggesting additional unseen mass.
- **Gravitational Lensing:** The bending of light around galaxy clusters indicates more mass than what is visible.

- **Cosmic Microwave Background (CMB):** Observations of early universe radiation suggest a significant presence of dark matter.

Possible Candidates for Dark Matter

- **WIMPs (Weakly Interacting Massive Particles):** Hypothetical particles that interact only through gravity and weak nuclear force.
- **Axions:** Extremely light particles theorized to be another potential dark matter candidate.
- **Primordial Black Holes:** Some theories suggest tiny black holes from the early universe could contribute to dark matter.

Experiments to Detect Dark Matter

- **Large Hadron Collider (LHC):** Searches for new particles that could be dark matter.
- **XENON, LUX-ZEPLIN, and PandaX:** Underground experiments aiming to detect dark matter interactions.
- **Fermi Gamma-ray Space Telescope:** Looks for dark matter annihilation signals in space.

Alternative Theories

- **Modified Gravity (MOND):** Some scientists propose that our understanding of gravity needs modification instead of invoking dark matter.
- **Extra Dimensions:** Some theories suggest dark matter may exist in hidden dimensions.

QUESTIONS

Solve the multiple choice questions:

11. Why do Einstein rings serve as an important tool for studying dark matter?
 - A. They allow direct detection of dark matter by measuring its interaction with light.
 - B. They reveal the temperature variations in dark matter particles across the universe.
 - C. They help scientists infer the presence of dark matter through gravitational lensing effects.
 - D. They are formed exclusively by dark matter halos surrounding galaxies.
12. Why are Einstein rings important for studying the expansion of the universe?
 - A. They help scientists measure the rate at which space between foreground and background galaxies is stretching.
 - B. They reveal the exact amount of dark energy required to counteract gravitational attraction.
 - C. They act as standard candles, providing precise measurements of cosmic distances.
 - D. They allow astronomers to measure changes in the speed of light as it bends around galaxies.

7. India ranks 96 out of 180 countries in Corruption Perceptions Index 2024

- Denmark topped the list of being the least-corrupt nation, followed by Finland and Singapore.
- India ranked 96 out of 180 countries in the Corruption Perceptions Index (CPI) for 2024 as its overall score dropped a point to 38, according to a Transparency International report.

- The index, which ranks 180 countries and territories by their perceived levels of public sector corruption according to experts and business people, uses a scale of zero to 100, where “zero” is highly corrupt and “100” is very clean.
- In 2024, India’s overall score was 38 while it was 39 in 2023 and 40 in 2022. India’s rank in 2023 was 93.
- Among India’s neighbours, Pakistan (135) and Sri Lanka (121) grappled with their respective low rankings, while Bangladesh’s ranking stood further down at 149. China ranked 76.
- Denmark topped the list of being the least-corrupt nation, followed by Finland and Singapore.
- The 2024 CPI showed that corruption is a dangerous problem in every part of the world, but a change for the better is happening in many countries.
- Research has also revealed that corruption is a major threat to climate action. It hinders progress in reducing emissions and adapting to the unavoidable effects of global heating.
- While 32 countries have significantly reduced their corruption levels since 2012, there is still a huge amount of work to be done as 148 countries have stayed stagnant or gotten worse during the same period.
- The global average of 43 has also stood still for years, while more than two-thirds of countries have scored below 50. Billions of people live in countries where corruption destroys lives and undermines human rights.
- “Huge numbers of people around the world suffer severe consequences of global heating, as funds intended to help countries cut greenhouse gas emissions and protect vulnerable populations are stolen or misused. At the same time, corruption in the form of undue influence obstructs policies aimed at addressing the climate crisis and leads to environmental damage,” the report said.
- Protecting climate mitigation and adaptation efforts from corruption will make these life-saving activities more effective and, in turn, benefit people in need, it added.
- Many countries with high CPI scores have the resources and power to drive corruption-resistant climate action around the world but instead, they often serve the interests of fossil-fuel companies, the report said.
- “Some of these countries are also home to financial hubs that attract illicit funds stemming from corruption, environmental destruction and other crime. While the CPI does not measure this, dirty money poses a major corruption problem with harmful effects that reach far beyond these countries’ borders,” it said.
- Corruption is an evolving global threat that does far more than undermine development — it is a key cause of declining democracy, instability and human rights violations. The international community and every country must make tackling corruption a top and long-term priority, the report said.
- “This is crucial to pushing back against authoritarianism and securing a peaceful, free and sustainable world.
- The dangerous trends revealed in this year’s Corruption Perceptions Index highlight the need to follow through with concrete action now to address global corruption,” it said.

QUESTIONS

Solve the multiple choice questions:

13. Based on the Corruption Perceptions Index (CPI) 2024, which of the following best describes India’s corruption trend over the past three years?
 - A. India’s CPI score has consistently improved, showing a strong anti-corruption drive.
 - B. India’s CPI score has remained stagnant, reflecting no significant change in corruption levels.
 - C. India’s CPI score has gradually declined, indicating a worsening perception of corruption.
 - D. India’s ranking has improved, but its overall corruption score has decreased slightly.

14. What key issue does the CPI 2024 report highlight about financial hubs in high-ranking CPI countries?
- A. They prevent illicit funds from flowing into their economies, reducing global corruption.
 - B. They attract illicit funds from corrupt activities, worsening global financial crime.
 - C. They primarily focus on prosecuting corrupt officials within their own borders.
 - D. They provide funding for developing countries to strengthen their anti-corruption mechanisms.

8. Nissan and Honda end \$60 bn merger talks

- Japan's Nissan and Honda have said that their boards have voted to end talks over a merger that would have created a \$60 bn (£48 bn) auto group, but added that both companies would continue to cooperate in electric vehicles.
- A merger would have spawned the world's fourth-biggest carmaker by vehicle sales after Toyota, Volkswagen and Hyundai.
- Nissan, Japan's third-largest automaker, backed out of the talks with its larger rival Honda after negotiations were complicated by growing differences, including Honda proposing that Nissan become a subsidiary, Reuters previously reported.
- The automakers, and junior partner Mitsubishi Motors, had announced they would consider the merger late last year. Mitsubishi was unlikely to participate, reports said.
- "Going forward, the three companies will collaborate within the framework of a strategic partnership aimed at the era of intelligence and electrified vehicles," the trio said in a statement.
- The key China market and the car industry in general have been upended by the rapid rise of Chinese electric vehicle (EV) makers such as BYD. Nissan and Honda, like other carmakers, are facing the prospect of tariffs in the US, another major market.
- Nissan is pushing ahead with a restructuring plan, announced in November, that includes cutting 9,000 jobs and reducing global capacity by 20%. It has yet to disclose details such as which locations will be affected.
- The announcement will cause uncertainty for the company's 130,000-strong workforce. However, it is thought the UK factory in Sunderland is unlikely to be affected.
- Before announcing the merger discussions in December, Nissan and Honda had been holding separate talks on a technology collaboration.
- Nissan is now open to working with new partners, with Taiwan's Foxconn seen as one candidate.

Automobile Hubs in World

1. United States

- Detroit, Michigan (Motor City) – Home to the "Big Three" (General Motors, Ford, and Stellantis).
- Silicon Valley, California – Hub for autonomous and electric vehicle innovation (Tesla, Waymo, Apple's automotive projects).
- South Carolina & Alabama – Growing manufacturing bases for BMW, Mercedes-Benz, and Honda.

2. Germany

- Stuttgart – Headquarters of Mercedes-Benz and Porsche.

- Wolfsburg – Volkswagen’s global headquarters.
- Bavaria (Munich, Ingolstadt) – BMW and Audi’s headquarters.

3. Japan

- Toyota City (Aichi Prefecture) – Toyota’s global headquarters and production center.
- Yokohama – Nissan’s headquarters.
- Hamamatsu – Suzuki and Honda’s manufacturing base.

4. China

- Shanghai – Major automotive hub with SAIC, Tesla Gigafactory, and Nio.
- Guangzhou – Honda, Toyota, and local Chinese brands (GAC).
- Changchun – FAW Group’s headquarters.

5. South Korea

- Seoul & Ulsan – Hyundai and Kia’s headquarters and manufacturing centers.

6. India

- Chennai (Detroit of India) – Ford, Hyundai, BMW, Nissan, and Renault production.
- Pune – Tata Motors, Mahindra, and Volkswagen factories.
- Gurgaon & Manesar (Haryana) – Maruti Suzuki and Hero MotoCorp.
- Bangalore – Electric vehicle and R&D hub.

7. Italy

- Turin – Fiat’s historical headquarters and Ferrari, Maserati, and Alfa Romeo’s base.

8. United Kingdom

- West Midlands (Birmingham, Coventry) – Jaguar Land Rover and Aston Martin.
- Oxford – BMW Mini production.

9. France

- Paris & Sochaux – Renault and Peugeot factories.

10. Mexico

- Monterrey & Guanajuato – Major production hub for General Motors, Ford, Nissan, and Volkswagen.

11. Brazil

- São Paulo & Curitiba – Volkswagen, Fiat, and Ford manufacturing.

12. Canada

- Ontario (Toronto, Windsor) – General Motors, Ford, and Stellantis plants.

QUESTIONS

Solve the multiple choice questions:

- Which of the following best describes the role of the National Company Law Tribunal (NCLT) in the merger process in India?
 - NCLT acts as the final authority on all merger-related decisions, and its rulings cannot be challenged.
 - NCLT adjudicates merger approvals, but dissenting parties can appeal its decisions to NCLAT.

- C. NCLT has no role in approving mergers but acts as a mediator between merging entities.
- D. NCLT functions as a regulatory body under SEBI, ensuring compliance with stock market regulations.

16. What was the primary reason for establishing the National Company Law Tribunal (NCLT) in 2016?
- A. To replace the Securities and Exchange Board of India (SEBI) in handling corporate mergers.
 - B. To implement the recommendations of the V. Balakrishna Eradi committee and improve insolvency resolution.
 - C. To function as an appellate body for arbitration disputes under the Indian Contract Act.
 - D. To oversee banking transactions and loan recoveries under the Reserve Bank of India.

9. Panama withdraws from BRI

- Panama has decided not to renew its Memorandum of Understanding (MoU) on China's Belt and Road Initiative (BRI), prompting strong opposition from China.
- In response, China's Assistant Foreign Minister Zhao Zhiyuan summoned Panama's Ambassador to express discontent, accusing the United States of coercion and attempting to discredit the BRI. Zhao argued that U.S. actions reflect its "hegemonic nature."
- The decision follows repeated concerns from former U.S. President Donald Trump about China's growing influence over the Panama Canal, a vital global trade route connecting the Atlantic and Pacific Oceans.
- Trump and U.S. officials fear that Chinese economic investments in Panama could lead to geopolitical leverage.
- The announcement comes shortly after a visit by U.S. Secretary of State Marco Rubio to Panama. However, Panamanian President Jose Raul Mulino denied direct U.S. pressure influenced the decision.
- China insists that its relationship with Panama is not directed against any third party and should remain free from external interference.
- Panama was the first Latin American country to formally join the BRI in 2017, strengthening economic ties with China. However, recent developments indicate shifting geopolitical dynamics in the region.
- The dispute highlights broader tensions between China and the U.S. over influence in Latin America, particularly regarding key infrastructure projects like the Panama Canal.
- While the U.S. warns of China's expanding strategic interests, Beijing dismisses these concerns as politically motivated. The situation underscores ongoing competition between the two global powers in shaping Latin America's economic and political landscape.

First, a recap of Trump's claims about Panama, China

- In December 2024, Donald Trump threatened a U.S. takeover of the Panama Canal, citing unfair treatment of American naval and commercial interests.
- He claimed that Panama was overcharging U.S. ships and alleged that Chinese soldiers were illegally operating the canal. Trump argued that when the U.S. ceded control in the late 1990s, it was meant for Panama alone, not China or others.

- The U.S. had built and controlled the canal from 1904 to 1914, benefiting from low shipping costs that boosted its economy.
- However, rising expenses and mismanagement led to the decision to transfer control.
- The 1977 Torrijos-Carter Treaties ensured that the U.S. retained the right to defend the canal militarily if its neutrality was threatened, securing its geopolitical interests without direct control.
- Trump's remarks highlighted concerns over growing Chinese influence in the region and questioned Panama's current management of the canal.

How has Panama responded?

- Panama's President José Raúl Mulino refuted claims of Chinese control over the Panama Canal, emphasizing that all foreign investments are welcome and denying the presence of Chinese soldiers.
- However, US concerns remained. During Senator Marco Rubio's visit in early February, he reaffirmed US opposition to China's involvement in the canal.
- Following discussions with a top US diplomat, Mulino indicated a willingness to review agreements with China and Chinese businesses while strengthening cooperation with the US on migration.
- Despite this, he maintained that Panama's sovereignty over the canal is non-negotiable.

What is known about China's presence in the Panama Canal?

- The Panama Canal, managed by the Panama Canal Authority, hosts ports and container terminals operated by private firms. Since 1997, the Hong Kong-based Panama Ports Company (PPC), a subsidiary of Hutchison Port Holdings (HPH), has controlled the Ports of Balboa and Cristobal. In 2021, PPC received a 25-year contract extension, but concerns over its suitability have led to an audit, potentially triggering a rebidding process.
- China's influence in Panama has grown, with Chinese firms actively engaged in port operations and infrastructure projects. The People's Liberation Army (PLA) has ties with Panama's security forces, and China Ocean Shipping Company (COSCO) is a major canal user. COSCO also built Peru's \$3 billion Chancay Port under China's Belt and Road Initiative (BRI), further expanding China's presence in Latin America.
- The U.S. views China's involvement in Panama as a strategic threat. U.S. Senator Marco Rubio warned in January that China-controlled companies could disrupt the canal in a conflict, posing risks to U.S. national security. The U.S. remains wary of Chinese state-backed firms, fearing Beijing could leverage them for geopolitical influence in the region.

Panama Canal

- The Panama Canal is a crucial waterway that connects the Atlantic Ocean (via the Caribbean Sea) and the Pacific Ocean, allowing ships to bypass the long and treacherous route around the southern tip of South America (Cape Horn).
- It is one of the most important engineering feats in history and a key factor in global trade.

Significance of the Panama Canal

Global Trade & Economy

- Handles about 5% of world trade.
- Reduces travel distance for ships by approximately 13,000 km (8,000 miles) compared to the Cape Horn route.
- Saves time and fuel, reducing shipping costs significantly.

Strategic Military Importance

- Historically important for U.S. naval movement and defense.
- Played a vital role during World War II and the Cold War.

Engineering Marvel

- Features lock systems that lift and lower ships between sea level and Gatun Lake.
- Expanded in 2016 with the Panama Canal Expansion (Third Set of Locks) to accommodate larger vessels (Neo-Panamax ships).

Impact on Panama

- Major source of revenue for the country.
- Contributed to Panama's economic growth and infrastructure development.
- Led to the Panama Canal Treaty (1977), transferring control from the U.S. to Panama on December 31, 1999.

QUESTIONS

Solve the multiple choice questions:

17. What is the primary reason for geopolitical tensions between the U.S. and China over Panama's decision to exit the BRI?
 - A. The U.S. fears that Chinese investments in Panama could grant Beijing strategic leverage over the Panama Canal.
 - B. China accused Panama of violating its diplomatic agreements and threatened economic sanctions.
 - C. The U.S. is pressuring Panama to align with its Indo-Pacific security strategy against China.
 - D. Panama's withdrawal disrupts China's trade routes, significantly affecting its global economic expansion.
18. How does the Torrijos-Carter Treaty (1977) continue to shape U.S. policy on the Panama Canal?
 - A. It gives the U.S. the legal authority to retake control of the canal if a foreign power influences Panama's management.
 - B. It allows the U.S. to defend the canal militarily if its neutrality is threatened but does not permit direct control.
 - C. It prevents any foreign country, including China, from investing in Panama's infrastructure.
 - D. It grants the U.S. exclusive commercial rights over all shipping through the canal.

10. Digital Infrastructure in India

- India's digital economy contributed 11.74% to GDP in 2022-23 (₹31.64 lakh crore) and employed 14.67 million workers. Productivity in this sector is five times higher than others, with its share projected to reach 20% of GVA by 2029-30. Growth is driven by AI, cloud services, and digital platforms, with India hosting 55% of the world's Global Capability Centers.
- In the BFSI (Banking, Financial Services, and Insurance) sector, over 95% of banking payment transactions are now digital and digital platforms are expanding at 30% annually. By 2030, the digital economy is expected to be a key driver of national growth.

Unified Payments Interface (UPI)

- Launched in 2016, UPI or Unified Payments Interface, enables real-time interbank transactions via mobile devices, facilitating seamless digital payments.
- As per ACI Worldwide Report 2024, in 2023 around 49% of the global real-time payment transactions is happening in India. As of 2023, more than 40% of all payments done in India are digital, with UPI having a lion's share.

Key Achievements

- In December 2024, the value of transactions conducted through UPI stands at ₹23,24,699.91 crore, as compared to December 2016, when it was ₹707.93 crore and December 2020, when it was ₹4,16,176.21 crore.
- As of December 2024, 641 banks are live on UPI, as compared to December 2016, when it was 35 banks only and December 2020, when it was 207 banks only.
- As of December 2024, 16,730.01 million transactions were held through UPI, as compared to 1.99 million in December 2016 and 2,234.16 million in December 2020.
- UPI now seamlessly facilitates live transactions in 7 countries, including key markets such as UAE, Singapore, Bhutan, Nepal, Sri Lanka, France, and Mauritius.

Telecom and Internet Infrastructure

Telephone Subscriptions

- Total telephone connections in India grew from 933 million in March 2014 to 1188.70 million in October 2024.
- The overall tele-density in India which was 75.23 % in March 2014 rose to 84.49% in October 2024.
- Urban telephone connections rose to 661.36 million in October 2024 as compared to 555.23 million in March 2014 while rural telephone connections increased from 377.78 million in March 2014 to 527.34 million in October 2024.

Internet & Broadband Penetration

- Internet connections jumped from 25.15 crore in March 2014 to 96.96 crore in June 2024, registering a growth of 285.53%.
- Broadband connections rose from 6.1 crore in March, 2014 to 94.92 crore in August, 2024 growing by 1452%.
- Out of 6,44,131 villages, 6,15,836 number of villages are having 4G mobile connectivity in the country, as of December 2024.
- Average revenue realization per subscriber per GB wireless data reduced to Rs 8.31 in June, 2024 from Rs 268.97 in December, 2014, a reduction of more than 96.91%.
- Average monthly data consumption per wireless data subscriber increased by 353 times to 21.30 GB in June, 2024 from 61.66 MB in March, 2014.
- India has seen the fastest rollout of 5G services in the world with 4,62,084 BTS deployed across 779 districts, as of December 2024.
- The Median mobile broadband speed has increased from 1.30 Mbps in March 2014 to 95.67 Mbps in December 2024.
- As of December 2024, the number of 4G Base Transceiver Station (BTS) have reached 24,96,644, spread across 783 districts.

Aadhaar

- Launched in 2009, Aadhaar provides a unique 12-digit identity number linked to biometric and demographic data for Indian residents.

Key Achievements

- UIDAI has issued more than 136.65 crore Aadhaar cards till March 2023, as compared to 120.71 crore Aadhaar cards till March 2018, 61.01 crore till March 2014 and 0.42 crore Aadhaar cards till March 2011.
- Aadhaar face authentication crossed 100 crore milestone in January 2025.
- 1470.22 crore e-KYC transactions were recorded by March 2023, as compared to 0.01 crore in March 2014 and 501.98 crore in March 2018.

DigiLocker

- Launched in 2015, DigiLocker aims at 'Digital Empowerment' of citizen by providing access to authentic digital documents to citizen's digital document wallet.

Key Achievements

- 46.52 crore users as on 1 February 2025.
- 2025.07 lakh yearly user signups recorded in 2024 as compared to 9.98 lakh signups recorded in 2015.

UMANG

- Launched in 2017, UMANG (Unified Mobile Application for New-age Governance) is developed to drive Mobile Governance in India. UMANG provides a single platform for all Indian Citizens to access pan India e-Gov services ranging from Central to Local Government bodies.

Key Achievements

- 7.34 crore user registrations and 516.06 crore transactions recorded as of December 2024, as compared to 0.25 lakh users and 3.90 crore transactions in 2017 and 2.54 crore users and 126.55 crore transactions in 2020.
- 2,101 government services are available on the UMANG portal in 23 Indian languages as of December 2024, as compared to 166 services in 2017 and 974 services in 2020.

BharatNet

- Launched in 2011, BharatNet is an ambitious project aimed at providing affordable high-speed internet access to every Gram Panchayat in the country.

Key Achievements

- As of January 2025, 2.14 lakh gram panchayats have been connected with internet through BharatNet.
- 6.92 lakh kms of Optical Fibre Cable has been laid as of January 2025.
- 1.04 lakh WIFI hotspots have been installed at gram panchayats, as of January 2025.

Open Network for Digital Commerce (ONDC)

- Launched in 2022, The Open Network for Digital Commerce (ONDC) is a transformative initiative aimed at democratizing digital commerce. It envisions creating a level playing field for sellers, buyers, and service providers across India, particularly small and medium enterprises (MSMEs).

Key Achievements

- As of January 2025, the sellers and service providers are spread across 616+ cities expanding the geographical coverage of the ONDC network.
- As of January 2025, there are more than 7.64 lakh sellers/service providers registered on the ONDC platform.

- ONDC has processed a cumulative of 154.4 million+ orders till December 2024. In the month of December 2024, ONDC processed 15.4 million + orders and average daily transactions reached approximately 4,90,000+.

BHASHINI

- Launched in 2022, BHASHINI, or the BHASHa Interface for India, is a pathbreaking initiative aimed at democratizing access to digital content and services across India's linguistic spectrum. BHASHINI aims to transcend language barriers, ensuring that every citizen can effortlessly access digital services in their own language. Launched under the National Language Technology Mission, BHASHINI uses voice as a medium and has the potential to bridge language as well as the digital divide.

Key Achievements

- 100 million+ Inferences per Month
- 50+ Stakeholders Onboarded, including prominent government bodies (NPCI, RBIH, MoRD, Lok Sabha, Rajya Sabha, etc.) and private sector partners.
- 500,000+ Mobile App Downloads.
- 22+ Languages Supported

Government e-Marketplace (GeM)

- Launched in 2016, Government e Marketplace (GeM), created in a record time of five months, facilitates online procurement of common use Goods & Services required by various Government Departments / Organisations / PSUs

Key Achievements

- As of January, 2025, GeM has clocked a GMV of ₹4.09 lakh crore within 10 months of the current Fiscal Year 2024-25, which marks a growth of nearly 50% over the corresponding period last FY.

QUESTIONS

Solve the multiple choice questions:

- How does the Open Network for Digital Commerce (ONDC) differ from conventional e-commerce platforms like Amazon and Flipkart?
 - ONDC operates as an open digital network where sellers and buyers interact across multiple platforms, rather than being restricted to a single entity's ecosystem.
 - ONDC is owned and operated entirely by the Indian government, unlike Amazon and Flipkart, which are privately managed.
 - ONDC functions solely as a payment gateway, facilitating transactions but not managing logistics or product listings.
 - ONDC only allows participation from government-approved businesses, unlike conventional platforms that include private enterprises.
- Why is the BHASHINI initiative considered transformative for India's digital ecosystem?
 - It enables real-time speech-to-text conversion in Indian languages, bridging the language divide in digital services.
 - It standardizes a single national language for digital transactions and governance to improve efficiency.
 - It focuses exclusively on linguistic research and does not integrate with public or private digital platforms.
 - It primarily functions as an AI-powered chatbot for Indian government services, similar to UMANG.

ANSWER KEY AND EXPLANATION

1. **D** Djibouti hosts multiple foreign naval bases due to its strategic location near critical global shipping routes. (A) Incorrect: While China's PLA Support Base in Djibouti does provide China with strategic leverage in the Indian Ocean and Africa, its primary stated purpose is logistics, anti-piracy, and peacekeeping support. There is no official claim that it was established to counter NATO influence. (B) Incorrect: Japan's Self-Defense Forces Base in Djibouti was established primarily for anti-piracy operations in the Gulf of Aden. While counterterrorism is a secondary focus, its main role is securing maritime routes against piracy. (C) Incorrect: While Russia has signed agreements since 2020 to establish a naval base in Port Sudan, as of now, the base has not become fully operational due to ongoing negotiations and geopolitical considerations. (D) Correct: Djibouti hosts naval bases from multiple countries including the United States, China, France, Japan, and Italy because of its critical location near the Bab el Mandeb Strait, a key maritime chokepoint for global trade between the Red Sea and the Indian Ocean. Thus, option D is the most accurate statement based on the information provided.
2. **C** The Suez Canal is an artificial sea-level waterway in Egypt, connecting the Mediterranean Sea to the Red Sea through the Isthmus of Suez and dividing Africa and Asia (and by extension, the Sinai Peninsula from the rest of Egypt). The 193.30-kilometre-long canal is a key trade route between Europe and Asia.
3. **B** The British feared that allowing non-White soldiers to fight against White Europeans might undermine colonial rule in India. (A) Incorrect: While the harsh European winters were indeed challenging for Indian troops, it was not the primary reason for their withdrawal from Europe. (B) Correct: Historian Richard Fogarty (2008) noted that the British authorities were concerned about the psychological impact of allowing non-White soldiers to fight against Europeans. They feared that battle-hardened Indian troops, once exposed to European warfare, might become difficult to control post-war, threatening British colonial rule in India. (C) Incorrect: Although many Indian troops were later redeployed to West Asia, this was a consequence of British fears rather than the primary reason for their removal from Europe. (D) Incorrect: The British Expeditionary Force had been devastated in the early years of WWI, and Britain still required reinforcements. Indian troops were removed not because they were redundant but because of racial and political concerns. Thus, option B is the best explanation for Britain's decision to remove most Indian troops from Europe in 1915.
4. **A** A. Indian troops were primarily deployed in Europe during WWI but were largely engaged in the Asia-Pacific theater during WWII. (A) Correct: In World War I (WWI), Indian troops initially fought on the Western Front in Europe (e.g., Ypres, Neuve-Chapelle). However, by 1915, they were largely shifted to the West Asian front (e.g., Gallipoli, Mesopotamia, Palestine). In World War II (WWII), most Indian soldiers fought in Asia, particularly in Burma (Myanmar), Kohima, and Imphal, against Japanese forces rather than in Europe. (B) Incorrect: Indian troops participated in both offensive and defensive battles in both wars. In WWI, Indian soldiers were crucial in defensive battles like the Ypres Salient but also launched offensive operations (e.g., Neuve-Chapelle). In WWII, they played an offensive role in battles like Imphal and Kohima, but they were also on the defensive in the initial Japanese advance. (C) Incorrect: In WWI, Indian troops were engaged in both front-line combat and support roles. At Neuve-Chapelle (1915), thousands of Indian soldiers fought directly against German troops. In WWII, many Indian soldiers were again deployed in front-line combat, particularly in Burma and the Middle East. (D) Incorrect: More Indian soldiers served in WWII (nearly 3 million)

than in WWI (about 1.3 million). Thus, option A is the best answer because it correctly differentiates the theaters of war where Indian troops were deployed in the two world wars.

5. **B** (A) Incorrect: While India aims to contribute to AI ethics and regulation, its primary focus is inclusivity, especially for the Global South. (B) Correct: PM Modi explicitly emphasized that the Global Partnership for AI should better reflect the priorities of the Global South, which consists of nations with common economic and developmental challenges. (C) Incorrect: There is no mention of India forming an exclusive AI-centric bloc with France; rather, the summit promotes global cooperation. (D) Incorrect: India's approach to AI is not about restricting applications but about developing AI responsibly and inclusively. Thus, option B is the most accurate answer.
6. **B** (A) Incorrect: These initiatives were not led by India; they were introduced by France under President Emmanuel Macron. (B) Correct: PM Modi welcomed the establishment of the AI Foundation and the Council for Sustainable AI, recognizing France's leadership in AI governance. (C) Incorrect: These initiatives are not part of the United Nations. (D) Incorrect: These are not U.S.- or EU-based initiatives; rather, they were launched at the Paris AI Summit under French leadership. Thus, option B is the correct answer.
7. **B** (A) Incorrect: While many bilateral exercises involve counterterrorism and counter-insurgency training (e.g., Mitra Shakti with Sri Lanka, Garuda Shakti with Indonesia, Dharma Guardian with Japan), they are not exclusively focused on these aspects. Some, like Yudh Abhyas with the U.S., include high-altitude warfare. (B) Correct: Bilateral exercises typically involve focused training in specialized military skills (e.g., Vajra Prahar is a special forces exercise with the U.S.; Nomadic Elephant with Mongolia emphasizes jungle warfare). Multilateral exercises, such as Malabar (India, U.S., Japan, Australia) and Milan (involving Indo-Pacific and ASEAN nations), are designed to enhance regional security cooperation and interoperability among multiple nations. (C) Incorrect: Multilateral exercises involve all three branches (Army, Navy, and Air Force). For example, Indra with Russia is a tri-service exercise involving land, air, and naval operations. (D) Incorrect: Bilateral exercises are not limited to neighboring countries (e.g., Shakti with France, Dharma Guardian with Japan). Similarly, multilateral exercises are not strictly global but often focus on regional partnerships (e.g., Milan in the Indo-Pacific). Thus, option B is the best explanation as it correctly differentiates the specific military focus of bilateral exercises from the strategic nature of multilateral exercises.
8. **C** (A) Incorrect: SIMBEX (India-Singapore) is an important naval exercise, but it mainly focuses on anti-submarine warfare and naval maneuvers rather than regional Indo-Pacific strategy. (B) Incorrect: SLINEX (India-Sri Lanka) is a bilateral naval exercise aimed at improving maritime security in the Indian Ocean region, but it does not have the same global strategic significance as Malabar. (C) Correct: Malabar is the most strategically significant naval exercise for India's Indo-Pacific presence because: It includes the Quadrilateral Security Dialogue (Quad) nations – India, the U.S., Japan, and Australia – all of which are key players in countering China's influence in the Indo-Pacific. It enhances India's naval interoperability with major allies and strengthens its position in maritime security. It focuses on anti-submarine warfare, intelligence-sharing, and high-end naval operations, making it one of the most advanced naval exercises. (D) Incorrect: JIMEX (India-Japan) is a crucial bilateral naval exercise, but it does not include the same level of strategic multilateral engagement as Malabar. Thus, option C is correct, as Malabar is the most strategically relevant Indo-Pacific naval exercise for India.

9. **B** (A) Incorrect: While revenue generation by Panchayats is an important factor (as noted in Tripura's improvement), the index is broader and measures multiple governance aspects, not just fiscal independence. (B) Correct: The Panchayat Devolution Index 2024, created by the Indian Institute of Public Administration (IIPA), ranks states and UTs based on their initiative in strengthening PRIs through devolution of functions, finances, and administrative powers. (C) Incorrect: The index does not directly measure the utilization of central funds in rural development but assesses overall governance improvements in PRIs. (D) Incorrect: Political participation is not a key parameter of the index; it focuses on governance structure, finances, and decentralization. Thus, option B is the best answer, as it correctly defines the core purpose of the index—measuring how much autonomy and power states have transferred to Panchayati Raj Institutions.
10. **B** (A) Incorrect: The index does not specifically measure direct cash transfers but rather the broader structural and governance aspects of PRIs. (B) Correct: The passage states that Karnataka ranked highest because of its overall performance in all six governance dimensions: Framework, Functions, Finances, Functionaries, Capacity building and Accountability. (C) Incorrect: While elected representatives are important for local governance, the ranking is based on effective devolution of powers, not the number of representatives. (D) Incorrect: Fund allocation is one factor, but mere allocation does not guarantee effective implementation. Thus, option B is the most accurate answer, as Karnataka excelled across all governance dimensions in the Panchayat Devolution Index 2024.
11. **C** (A) Incorrect: Dark matter does not interact with light, so it cannot be detected directly using conventional observational methods. (B) Incorrect: Einstein rings do not provide information about the temperature of dark matter since dark matter does not emit, absorb, or scatter light. (C) Correct: Einstein rings are formed due to gravitational lensing, where a massive foreground object (such as a galaxy) bends and amplifies light from a more distant object. Since dark matter contributes to the gravitational lensing effect, scientists can infer its presence indirectly through its gravitational influence. (D) Incorrect: Einstein rings are not exclusively caused by dark matter halos—they can also be created by massive galaxies or galaxy clusters acting as gravitational lenses. Thus, option C is correct, as gravitational lensing allows scientists to infer the presence of dark matter without detecting it directly.
12. **A** (A) Correct: Einstein rings occur due to gravitational lensing, which magnifies and distorts distant galaxies. By analyzing the lensing effect, scientists can study the large-scale structure of the universe and measure how space itself is expanding over cosmic time. (B) Incorrect: Einstein rings do not directly measure the amount of dark energy but can contribute to understanding cosmic expansion, which is linked to dark energy. (C) Incorrect: Standard candles (such as Type Ia supernovae) are used to measure distances in the universe, but Einstein rings are not standard candles because their formation depends on alignment, not intrinsic brightness. (D) Incorrect: The speed of light remains constant; gravitational lensing bends light but does not change its speed. Thus, option A is correct, as Einstein rings provide a method to study cosmic expansion by analyzing how space between galaxies is stretching over time.
13. **C** (A) Incorrect: India's CPI score has not improved; rather, it has declined over the past three years. (B) Incorrect: While many countries have remained stagnant, India's score has dropped from 40 in 2022 to 39 in 2023, and further to 38 in 2024, meaning it has worsened, not remained the same. (C) Correct: The Transparency International report clearly shows India's CPI score has declined from 40 to 38 in the past three years, reflecting a negative trend in corruption perception. (D) Incorrect: India's ranking has worsened, not improved. It dropped from 93rd place in 2023 to 96th in 2024, and the score has also

fallen, making this option incorrect. Thus, option C is correct, as India's declining CPI score indicates a worsening perception of corruption.

- 14. B** (A) Incorrect: The report criticizes high-ranking CPI countries for failing to prevent illicit funds from flowing into their economies, meaning they enable corruption rather than reducing it. (B) Correct: The CPI 2024 report states that some high-ranking countries serve as financial hubs that attract illicit funds from corruption, environmental destruction, and crime. This facilitates global corruption rather than fighting it. (C) Incorrect: While these countries may have strong domestic anti-corruption mechanisms, the report highlights their failure to tackle global financial corruption, allowing dirty money to flow in. (D) Incorrect: The report does not claim that high-ranking countries provide financial assistance for anti-corruption efforts in other nations. Instead, they often serve as safe havens for corrupt wealth. Thus, option B is correct, as the report highlights how many high-ranking CPI countries play a role in global corruption by allowing illicit funds to enter their financial systems.
- 15. B** (A) Incorrect: The NCLT is not the final authority in merger-related decisions. Dissatisfied parties can challenge its rulings in the National Company Law Appellate Tribunal (NCLAT). (B) Correct: The NCLT is responsible for approving mergers, but if any dissenting party objects, they can appeal to the NCLAT. This aligns with the Companies Act 2013, which entrusts NCLT with corporate dispute resolution. (C) Incorrect: NCLT does not merely act as a mediator; it has legal authority to approve or reject merger proposals. (D) Incorrect: NCLT is not a regulatory body under SEBI. It functions under the Companies Act 2013, dealing with corporate restructuring, insolvency, and mergers. Thus, option B is correct, as it accurately describes NCLT's role in approving mergers while allowing for appellate review by NCLAT.
- 16. B** (A) Incorrect: NCLT does not replace SEBI; SEBI continues to regulate stock markets and listed companies. (B) Correct: NCLT was established in 2016 based on the recommendations of the V. Balakrishna Eradi committee to streamline corporate governance, mergers, and insolvency resolution under the Insolvency and Bankruptcy Code (IBC), 2016. (C) Incorrect: NCLT does not handle arbitration disputes; such disputes typically fall under the Arbitration and Conciliation Act, 1996. (D) Incorrect: While NCLT handles insolvency and bankruptcy cases, it does not oversee general banking transactions or loan recoveries—this falls under the jurisdiction of Debt Recovery Tribunals (DRTs). Thus, option B is correct, as it accurately reflects the reason for establishing NCLT based on the Eradi committee's recommendations.
- 17. A** (A) Correct: The Panama Canal is a crucial global trade route connecting the Atlantic and Pacific Oceans. The U.S. has repeatedly expressed concerns that Chinese investments in Panama could lead to geopolitical leverage over this strategic waterway, affecting American commercial and naval interests. Trump's earlier statements suggest a fear that China's economic foothold could transform into military or strategic control, despite China's claims that its involvement is purely economic. (B) Incorrect: China criticized Panama's decision and blamed U.S. pressure but did not threaten economic sanctions. (C) Incorrect: The Indo-Pacific security strategy primarily focuses on Asia-Pacific and the Indian Ocean, not Latin America. (D) Incorrect: While Panama's withdrawal weakens China's influence, it does not directly disrupt its trade routes, as China still uses other maritime channels. Thus, option A is correct, as it accurately reflects U.S. concerns over China's growing influence on the Panama Canal.
- 18. B** (A) Incorrect: The Torrijos-Carter Treaty does not give the U.S. unilateral authority to retake control of the canal. Instead, it ensures that Panama has full sovereignty over canal operations. (B) Correct: Under the Neutrality Treaty (part of the Torrijos-Carter agreement), the U.S. has the right to intervene

militarily if the canal's neutrality is threatened. However, this does not mean the U.S. can reclaim direct control over the canal. (C) Incorrect: The treaty does not prohibit foreign investment in Panama. China's involvement in Panama's infrastructure is an economic issue, not a treaty violation. (D) Incorrect: The treaty does not grant the U.S. exclusive commercial rights over the canal. The canal remains open for global trade, and Panama determines its toll structure and management. Thus, option B is correct, as the Torrijos-Carter Treaty ensures Panama's control over the canal while allowing the U.S. to defend its neutrality if necessary.

- 19. A** (A) Correct: Unlike Amazon or Flipkart, which function as centralized platforms, ONDC is an open network where different e-commerce players, sellers, and buyers can transact across multiple platforms. This democratizes digital commerce, allowing small businesses and MSMEs to compete with larger companies. (B) Incorrect: While ONDC is a government-backed initiative, it is not owned or operated entirely by the government—it acts as a network infrastructure rather than a marketplace itself. (C) Incorrect: ONDC is not just a payment gateway; it facilitates end-to-end digital commerce, including listing, ordering, payments, and fulfillment, but through a decentralized network. (D) Incorrect: ONDC is open to both government and private businesses, with over 7.64 lakh sellers and service providers registered. Thus, option A is correct, as ONDC creates an open network that removes platform restrictions and enables greater market access.
- 20. A** (A) Correct: BHASHINI focuses on democratizing access to digital content and services in multiple Indian languages. It does this by using AI-driven speech-to-text, text-to-speech, and language translation technologies, allowing seamless access to digital services in native languages. (B) Incorrect: BHASHINI does not standardize a single national language; instead, it supports 22+ languages to promote inclusivity in digital governance and services. (C) Incorrect: BHASHINI is not just a research initiative—it has real-world applications, integrating with stakeholders like NPCI, RBIH, Lok Sabha, and private sector partners. (D) Incorrect: While BHASHINI enhances accessibility, it is not just an AI chatbot like UMANG. Instead, it provides language-related digital solutions for multiple sectors. Thus, option A is correct, as BHASHINI breaks linguistic barriers, enabling speech-to-text and translation services to make digital access more inclusive.