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Saturday, July 18, 2026



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Top Stories of The Day

- *India–Finland Expand Cooperation in Digitalisation, AI, 6G, Quantum Technologies and Emerging Technologies*
- *BRICS Nations Sign MoU on Standardisation Cooperation During India's Chairship in Bengaluru*
- *Supreme Court Directs States and UTs to Frame Policy for Early Release of Elderly and Terminally Ill Prisoners*
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- *IN-SPACe Approves Reliance Jio's 1,600-Satellite Low Earth Orbit Constellation*
- *Tata Electronics to Launch India's First Semiconductor Chip Fabrication Plant in Gujarat*
- *Serum Institute Partners with Gates MRI to Develop Experimental Tuberculosis Vaccine*

India and Finland Decide to Expand Collaboration in Digitalisation and Emerging Technologies



- India and Finland have agreed to deepen bilateral cooperation in digitalisation, emerging technologies, trade, investment, innovation, and research & development (R&D) during the official visit of Union Minister of Commerce and Industry Piyush Goyal to Helsinki, Finland.
- During the visit, Piyush Goyal held bilateral meetings with Finland's Deputy Prime Minister and Finance Minister Riikka Purra and Minister of Economic Affairs Sakari Puisto. Both sides discussed enhancing collaboration in Artificial Intelligence (AI), 6G, quantum technologies, semiconductors, space, sustainability, startups, and innovation, while also exploring opportunities under the proposed India-European Union Free Trade Agreement (India-EU FTA). The visit also witnessed the signing of two institutional Memoranda of Understanding (MoUs) and the India-Finland Business Forum in Helsinki.

India-Finland Relations:

- Diplomatic Relations Established: 1949.

India and Finland cooperate in:

- Information and Communication Technology (ICT).
- Telecommunications.
- Clean energy.
- Circular economy.
- Education and research.
- Digital innovation.

- Sustainable development.
- Arctic research and climate studies.

About the India-EU Free Trade Agreement (FTA):

- India and the European Union (EU) are negotiating a comprehensive Free Trade Agreement aimed at:
- Increasing bilateral trade.
- Reducing tariffs and non-tariff barriers.
- Promoting investment.
- Strengthening supply chains.
- Expanding cooperation in digital trade, sustainability, and technology.
- The FTA is expected to significantly boost India's trade with EU member countries, including Finland.

About Finland:

- Capital: Helsinki.
- Currency: Euro (€).
- Official Languages: Finnish and Swedish.
- Prime Minister: Petteri Orpo.
- President: Alexander Stubb.
- Member Of: European Union (EU), NATO, Schengen Area, OECD, and Eurozone.

Additional Key Facts:

- Finland is globally recognised for its leadership in 5G/6G research, digital innovation, and telecommunications.
- Finland is home to Nokia, one of the world's leading telecommunications technology companies.
- India and Finland are expanding cooperation in AI, quantum computing, semiconductors, clean technologies, and digital infrastructure as part of future-oriented economic engagement.

- The India–EU FTA is expected to strengthen India's trade and investment ties with all 27 EU member states.
- Finland consistently ranks among the world's leading countries in innovation, education, digital governance, and sustainability.

Exam Focus Points:

- Countries: India and Finland.
- Venue: Helsinki, Finland.
- Indian Representative: Piyush Goyal.
- Finnish Representatives: Riikka Purra and Sakari Puisto.

- Key Areas: AI, 6G, quantum technologies, semiconductors, space, startups, sustainability, digitalisation.
- Business Event: India–Finland Business Forum.
- Related Agreement: India–EU Free Trade Agreement (FTA).
- Diplomatic Relations Established: 1949.
- Capital of Finland: Helsinki.
- Currency: Euro (€).
- Official Languages: Finnish and Swedish.
- Major Technology Company: Nokia.

BRICS Nations Sign Landmark MoU on Standardisation in Bengaluru



- Under India's BRICS Chairship 2026, the BRICS member countries signed a Memorandum of Understanding (MoU) on Cooperation in Standardisation during the 5th Meeting of Heads of BRICS National Standardisation Bodies (NSBs) held in Bengaluru, Karnataka.
- The agreement establishes the first formal institutional framework for cooperation among the national standards bodies of all 11 BRICS member countries. It aims to enhance information sharing, technical collaboration, capacity building, harmonisation of standards, and cooperation in emerging technologies such as Artificial Intelligence (AI), thereby facilitating trade and strengthening the collective role of BRICS in global standard-setting.

- Reduces technical barriers to trade among BRICS countries.
- Improves quality infrastructure and product interoperability.
- Strengthens the voice of developing economies in framing global standards.
- Supports innovation, manufacturing competitiveness, and sustainable development.
- Reinforces India's leadership during its BRICS Chairship.

About the Bureau of Indian Standards (BIS):

- Established: 1987.
- Parent Ministry: Ministry of Consumer Affairs, Food and Public Distribution.
- Headquarters: New Delhi.
- Director General: Sanjay Garg
- Statutory Basis: Bureau of Indian Standards Act, 2016.

Functions:

- National Standards Body of India.
- Formulates Indian Standards (IS).
- Product certification through the ISI Mark.
- Hallmarking of gold and silver jewellery.
- Conformity assessment and quality assurance.

Significance:

About BRICS:

- BRICS is an intergovernmental grouping of major emerging economies aimed at promoting cooperation in economic growth, trade, finance, technology, sustainable development, and global governance.

Current Members (11):

- Brazil
- Russia
- India
- China
- South Africa
- Egypt
- Ethiopia
- Iran
- Indonesia
- Saudi Arabia
- United Arab Emirates (UAE)

Additional Key Facts:

- BRICS was founded in: 2009 (South Africa joined in 2010, making it BRICS).

New Development Bank (NDB):

- Established: 2014.
- President: Dilma Rousseff
- Headquarters: Shanghai, China.
- Purpose: Finance infrastructure and sustainable development projects.

Contingent Reserve Arrangement (CRA):

- Established in 2014 to provide liquidity support to member countries during balance-of-payments pressures.

International Standardisation Organisations:

- ISO (International Organization for Standardization): Headquarters – Geneva, Switzerland.
- IEC (International Electrotechnical Commission): Headquarters – Geneva, Switzerland.
- BIS represents India in both ISO and IEC.

The concept of Quality Infrastructure (QI) comprises:

- Standardisation.
- Metrology.
- Accreditation.
- Conformity Assessment.
- India has increasingly focused on standards for Artificial Intelligence (AI), Electric Vehicles (EVs), renewable energy, semiconductors, and digital technologies.

Exam Focus Points:

- Event: 5th BRICS Heads of National Standardisation Bodies Meeting.
- Venue: Bengaluru, Karnataka.
- Chairship: India (BRICS 2026).
- Major Outcome: BRICS MoU on Cooperation in Standardisation.
- Indian Agency: Bureau of Indian Standards (BIS).
- Parent Ministry (BIS): Ministry of Consumer Affairs, Food and Public Distribution.
- BIS Headquarters: New Delhi.
- BIS Act: Bureau of Indian Standards Act, 2016.
- BRICS Members: 11.
- NDB Headquarters: Shanghai, China.
- ISO Headquarters: Geneva, Switzerland.
- IEC Headquarters: Geneva, Switzerland.

Supreme Court Directs States and UTs to Frame Policy for Early Release of Elderly and Terminally Ill Prisoners



- The Supreme Court of India has directed all States and Union Territories to formulate and notify a comprehensive policy for the early or premature release of elderly and terminally ill prisoners within three months.
- The Court invoked its extraordinary powers under Article 142 of the Constitution while deciding a Public Interest Litigation (PIL), emphasizing that the right to life and dignity under Article 21 continues even during imprisonment.
- The Court also directed that the entire process be integrated with the e-Prisons portal to ensure transparency, accountability, and timely disposal of applications.

Objectives of the Judgment:

- Ensure dignity and humane treatment of elderly and terminally ill prisoners.
- Establish a uniform national framework for compassionate release.
- Reduce delays in considering applications for premature release.
- Improve transparency through digital monitoring.
- Promote prison reforms in line with constitutional values.

Key Directions Issued by the Supreme Court:

- Every State and UT must notify a comprehensive policy within three months.
- The policy should define objective eligibility criteria for release.
- A transparent and time-bound mechanism must be established.

- Cases should be digitally tracked through the e-Prisons Portal.
- The framework should ensure fairness, accountability, and consistency across the country.

Constitutional Significance:

- Article 21: Guarantees the Right to Life and Personal Liberty, including the right to live with dignity.
- Article 142: Empowers the Supreme Court to pass any decree or order necessary for doing complete justice.
- The judgment reiterates that constitutional rights do not cease at the prison gate, and imprisonment does not extinguish human dignity.

About Premature Release of Prisoners:

- Premature release refers to the release of a convicted prisoner before completion of the full sentence, subject to:

- Good conduct.
- Statutory remission policies.
- Compassionate or humanitarian grounds.
- Recommendations of competent authorities.
- Applicable State remission policies.

It differs from:

- Parole: Temporary release without suspension of sentence.
- Furlough: Temporary leave granted periodically to maintain family and social ties.
- Remission: Reduction in the duration of a sentence without changing its nature.

About the e-Prisons Project:

- A Mission Mode Project under the National e-Governance Plan (NeGP).
- Implemented by the Ministry of Home Affairs (MHA) in collaboration with the National Informatics Centre (NIC).

- Digitises prison administration and inmate records.
- Facilitates online monitoring of prison management, legal processes, and prisoner information.

Additional Key Facts:

- Article 72: Power of the President to grant pardon, reprieve, respite, remission, suspension, or commutation of sentences in specified cases.
- Article 161: Similar clemency powers exercised by the Governor of a State.
- Prisons are a State Subject under Entry 4 of the State List (List II) of the Seventh Schedule of the Constitution.
- The Model Prison Manual, 2016 provides guidelines on prison administration, rehabilitation, legal aid, healthcare, and welfare of prisoners.
- The Prisons Act, 1894 remains the principal legislation governing prison administration in India, though several States have enacted or proposed modern prison laws.
- The National Legal Services Authority (NALSA) provides free legal aid to eligible

prisoners under the Legal Services Authorities Act, 1987.

Exam Focus Points:

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| • Court: Supreme Court of India. |
| • Bench: Justice Vikram Nath and Justice Sandeep Mehta. |
| • Beneficiaries: Elderly and terminally ill prisoners. |
| • Time Limit: Three months. |
| • Constitutional Articles: 21, 72, 142, 161. |
| • Digital Platform: e-Prisons Portal. |
| • Parent Ministry (e-Prisons): Ministry of Home Affairs. |
| • Implemented by: National Informatics Centre (NIC). |
| • Prisons Subject: State List (Entry 4, List II). |
| • Key Law: Prisons Act, 1894. |
| • Guidelines: Model Prison Manual, 2016. |

RBI's Financial Inclusion Index Rises to 70.0, Reflecting Continued Progress in Financial Inclusion



- The Reserve Bank of India (RBI) has reported that India's Financial Inclusion Index (FI-Index) improved to 70.0 in March 2026, up from 67.0 in March 2025, indicating sustained progress in expanding access to and usage of formal financial services.
- The improvement was driven primarily by higher usage and better quality of financial

services, reflecting deeper financial inclusion across the country.

- The FI-Index is published annually by the RBI and measures the extent of financial inclusion across the banking, insurance, investments, pensions, and postal sectors.

About the Financial Inclusion Index (FI-Index):

- The RBI developed the Financial Inclusion Index (FI-Index) in consultation with the Government of India and other stakeholders to provide a comprehensive measure of financial inclusion.

Key Features:

- Introduced in August 2021 (for the financial year ending March 2021).
- Composite index ranging from 0 to 100.
- 0 = Complete financial exclusion.
- 100 = Complete financial inclusion.
- No base year.

Covers multiple sectors including:

- Banking
- Insurance
- Investments
- Pension
- Postal savings

Parameters of the FI-Index:

- The index is based on 97 indicators under three broad dimensions:
- Parameter Weightage
- Access (availability of financial services) 35%
- Usage (actual use of financial products and services) 45%
- Quality (financial literacy, consumer protection, service quality) 20%

- The latest improvement was mainly due to better usage and quality, indicating that people are increasingly using digital payments, credit, insurance, and other financial services rather than merely opening bank accounts.

Government Initiatives Supporting Financial Inclusion:

- Pradhan Mantri Jan Dhan Yojana (PMJDY).
- Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY).
- Pradhan Mantri Suraksha Bima Yojana (PMSBY).
- Atal Pension Yojana (APY).
- Pradhan Mantri Mudra Yojana (PMMY).
- Stand-Up India Scheme.
- Digital India Mission.

- Unified Payments Interface (UPI).
- Direct Benefit Transfer (DBT).
- India Post Payments Bank (IPPB).

Additional Key Facts:

- Reserve Bank of India (RBI):
- Established: 1 April 1935.
- Nationalised: 1 January 1949.
- Headquarters: Mumbai.
- Established under: Reserve Bank of India Act, 1934.

Financial inclusion aims to ensure affordable access to:

- Savings accounts.
- Credit.
- Insurance.
- Pension.
- Payment and remittance services.
- Pradhan Mantri Jan Dhan Yojana (PMJDY) was launched on 28 August 2014 to provide universal access to banking services.

Exam Focus Points:

- Index: Financial Inclusion Index (FI-Index).
- Released By: Reserve Bank of India (RBI).
- Latest Score (March 2026): 70.0.
- Previous Score (March 2025): 67.0.
- Introduced: August 2021.
- Scale: 0–100.
- Dimensions: Access (35%), Usage (45%), Quality (20%).
- Indicators Covered: 97.
- RBI Headquarters: Mumbai.
- RBI Act: Reserve Bank of India Act, 1934.
- Major Financial Inclusion Scheme: Pradhan Mantri Jan Dhan Yojana (PMJDY).

Serhii Koretskyi Appointed as Ukraine's Prime Minister Amid Wartime Government Reshuffle



- Ukraine's Parliament (Verkhovna Rada) has approved Serhii Koretskyi as the country's new Prime Minister, following his nomination by President Volodymyr Zelenskyy as part of a major government reshuffle.
- Koretskyi, who previously served as the Chief Executive Officer (CEO) of Naftogaz, Ukraine's state-owned oil and gas company, has been entrusted with leading the government at a crucial stage of the ongoing Russia-Ukraine conflict, particularly in strengthening the country's energy security ahead of winter.

About Serhii Koretskyi:

- Ukrainian businessman and energy sector executive.
- Former CEO of Naftogaz, Ukraine's largest state-owned oil and gas company.
- Previously headed Ukrnafta, Ukraine's largest oil-producing company.
- Has over two decades of experience in the petroleum and energy sector.
- His appointment marks his first major government office after a long corporate career.

About the Prime Minister of Ukraine:

- The Prime Minister is the Head of Government of Ukraine.
- Leads the Cabinet of Ministers, the highest executive authority.
- Nominated by the President and approved by the Verkhovna Rada (Parliament).

- Responsible for implementing government policies, managing the economy, and coordinating ministries.

About Ukraine:

• Capital: Kyiv.
• Currency: Ukrainian Hryvnia (UAH).
• Official Language: Ukrainian.
• President: Volodymyr Zelenskyy.
• Parliament: Verkhovna Rada (unicameral legislature).
• Neighbouring Countries: Poland, Slovakia, Hungary, Romania, Moldova, Belarus, and Russia.
• Major Water Bodies: Black Sea and Sea of Azov.

Significance for International Relations:

- The appointment comes amid the continuing Russia-Ukraine war, which began with Russia's full-scale invasion in February 2022.
- Ukraine continues to receive military, financial, and humanitarian assistance from partners such as the European Union (EU), NATO members, the United States, and the United Kingdom.
- Energy resilience remains central to Ukraine's national security and post-war reconstruction strategy.

Additional Key Facts:

- Verkhovna Rada is the unicameral Parliament of Ukraine.
- Ukraine became an independent country in 1991 following the dissolution of the Soviet Union.
- Naftogaz is Ukraine's state-owned oil and gas company and plays a strategic role in the country's energy sector.
- Ukraine is a founding member of the United Nations (UN).

- Ukraine was granted European Union (EU) candidate status in June 2022.
- NATO (North Atlantic Treaty Organization) was established in 1949 and is headquartered in Brussels, Belgium.
- The Black Sea is strategically important for global trade, energy transport, and regional security.

Exam Focus Points:

- Country: Ukraine.
- New Prime Minister: Serhii Koretskyi.

- | |
|---|
| • President: Volodymyr Zelenskyy. |
| • Previous Position: CEO, Naftogaz. |
| • Parliament: Verkhovna Rada. |
| • Capital: Kyiv. |
| • Currency: Ukrainian Hryvnia (UAH). |
| • Official Language: Ukrainian. |
| • Strategic Issue: Russia–Ukraine conflict and energy security. |
| • EU Candidate Status: Granted in 2022. |

US Approves Nearly \$2 Billion Arms Sale to Saudi Arabia to Strengthen Defence Capabilities



Why is it in News?

- The United States (US) has approved a \$1.96 billion arms sale to Saudi Arabia. The deal aims to strengthen Saudi Arabia's defence capabilities and enhance security amid rising tensions in the Middle East.

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| • Additional Package: Spare parts, maintenance equipment, training, logistics support, and technical assistance. |
| • About Advanced Precision Kill Weapon System (APKWS) II |
| • Type: Laser-guided weapon system developed by the United States. |
| • Function: Converts 70 mm unguided rockets into precision-guided rockets. |
| • Advantage: Improves targeting accuracy while reducing collateral damage. |
| • Users: Operated by the US military and several allied countries. |

About Saudi Arabia

Key Considerations

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| • Country: United States (US) |
| • Buyer: Saudi Arabia |
| • Approved By: US State Department |
| • Value of Deal: Nearly \$1.96 billion |
| • Weapon System: Advanced Precision Kill Weapon System (APKWS) II guidance kits |
| • Purpose: To convert unguided rockets into precision-guided weapons. |

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| • Capital: Riyadh |
| • Currency: Saudi Riyal (SAR) |
| • Official Language: Arabic |
| • King: Salman bin Abdulaziz Al Saud |
| • Crown Prince & Prime Minister: Mohammed bin Salman |
| • Major Water Bodies: Red Sea and Persian Gulf |
| • Neighbouring Countries: Jordan, Iraq, Kuwait, Qatar, United Arab Emirates, Oman, and Yemen. |

Significance

- The arms deal strengthens the long-standing strategic partnership between the United States and Saudi Arabia. It is expected to enhance Saudi Arabia's ability to respond to regional security threats and reflects the US commitment to maintaining stability in the Middle East through defence cooperation.

Additional Key Facts

- US Congress: Has the authority to review and, if necessary, block major foreign arms sales.
- Saudi Arabia: One of the world's largest importers of defence equipment.
- US State Department: Oversees foreign military sales in line with US foreign policy and national security objectives.
- APKWS: Widely used for precision strikes against ground targets.

Exam Focus Points

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| • Country: Saudi Arabia |
| • Seller: United States (US) |
| • Approved By: US State Department |
| • Value of Deal: Nearly \$1.96 billion |
| • Weapon System: Advanced Precision Kill Weapon System (APKWS) II |
| • Purpose: Convert unguided rockets into precision-guided weapons. |
| • Next Step: Review by the US Congress. |
| • Objective: Strengthen Saudi Arabia's defence capabilities and regional security. |

Renowned Islamic Scholar John L. Esposito Passes Away at 86



Why is it in News?

- John L. Esposito, one of the world's leading scholars on Islam and Muslim-Christian relations, passed away at the age of 86. He was widely known for promoting a better understanding of Islam in the Western world through his books, research, and academic work.

Key Considerations

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| • Person: John L. Esposito |
| • Nationality: American |
| • Profession: Scholar of Islam, Author, and Professor |

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|---|
| • Known For: Promoting the study of Islam and improving understanding between Muslims and the West. |
| • Position: University Professor of Religion and International Affairs; Founding Director of the Prince Alwaleed Bin Talal Center for Muslim-Christian Understanding (ACMCU). |
| • Books Written: Authored or edited more than 50 books, including Islam: The Straight Path, The Islamic Threat: Myth or Reality?, and Who Speaks for Islam?. |

About John L. Esposito

- Birth: 1940, United States
- Field of Expertise: Islam, Political Islam, Middle East Studies, and Interfaith Relations.
- Contribution: Played a significant role in promoting academic research on Islam and encouraging dialogue between different religions and cultures.
- Recognition: Considered one of the most influential Western scholars on Islamic studies.

Significance

- John L. Esposito's work helped counter misconceptions about Islam and encouraged dialogue between different faiths. His research and publications continue to influence scholars, policymakers, and students worldwide.

Additional Key Facts

- Prince Alwaleed Bin Talal Center for Muslim-Christian Understanding (ACMCU): Established at Georgetown University to promote research on Islam, Christianity, and interfaith dialogue.
- Interfaith Dialogue: Refers to cooperation and understanding among followers of different religions to promote peace and mutual respect.

- Political Islam: One of Esposito's major research areas, focusing on the role of Islam in politics and society.

Exam Focus Points

Person: John L. Esposito
Nationality: American
Profession: Scholar of Islam and Author
Known For: Promoting understanding of Islam and Muslim-Christian relations through research and writings.

IN-SPACE Approves Reliance Jio's 1,600-Satellite Low Earth Orbit (LEO)

Constellation



Number of Satellites: Up to 1,600
Orbit: Low Earth Orbit (LEO)
Purpose: To provide satellite-based broadband internet services across India.
Target Areas: Remote, rural, and underserved regions with limited internet connectivity.
Approval: Authorisation granted by IN-SPACE under India's space sector reforms.

Why is it in News?

- The Indian National Space Promotion and Authorization Centre (IN-SPACE) has granted approval to Reliance Jio to establish a Low Earth Orbit (LEO) satellite constellation comprising up to 1,600 satellites. The project aims to provide high-speed satellite-based broadband services across India, including remote and underserved areas.

Key Considerations

- Organisation: Indian National Space Promotion and Authorization Centre (IN-SPACE)
- Company: Reliance Jio Platforms Ltd.
- Project: Low Earth Orbit (LEO) Satellite Constellation

About IN-SPACE

Full Form: Indian National Space Promotion and Authorization Centre.
Established: 2020.
Headquarters: Ahmedabad, Gujarat.
Parent Department: Department of Space (DoS), Government of India.
Role: Promotes, authorises, and regulates the participation of private companies in India's space sector.

About Low Earth Orbit (LEO)

- Altitude: Approximately 160 km to 2,000 km above the Earth's surface.

- **Advantages:** Lower communication delay (latency), faster internet speeds, and better coverage.
- **Uses:** Satellite internet, Earth observation, navigation, and scientific research.

Significance

- The approval marks a major step in India's growing private space ecosystem. It is expected to improve digital connectivity in remote regions, bridge the digital divide, and strengthen India's satellite communication infrastructure.

Additional Key Facts

- **Satellite Internet:** Provides broadband connectivity through satellites, making internet access possible in areas where fibre or mobile networks are unavailable.
- **Space Sector Reforms:** Introduced by the Government of India in 2020 to encourage

greater private sector participation in space activities.

- **IN-SPACe:** Functions as the single-window agency for authorising private space missions and infrastructure.

Exam Focus Points

- **Organisation:** IN-SPACe
- **Company:** Reliance Jio Platforms Ltd.
- **Project:** LEO Satellite Constellation
- **Satellites Approved:** Up to 1,600
- **Orbit:** Low Earth Orbit (LEO)
- **Objective:** Satellite-based broadband internet services
- **IN-SPACe Headquarters:** Ahmedabad, Gujarat
- **Parent Department:** Department of Space (DoS)

Tata Electronics to Launch India's First Semiconductor Chip Fabrication Plant



Why is it in News?

- Tata Electronics is set to establish India's first semiconductor chip fabrication (fab) plant using mature-node (older-generation) technology. The facility aims to boost domestic semiconductor manufacturing and reduce India's dependence on imported chips.

Key Considerations

- **Company:** Tata Electronics
- **Project:** India's first semiconductor chip fabrication (Fab) plant

- **Technology:** Mature-node (older-generation) semiconductor technology
- **Location:** Dholera Special Investment Region (SIR), Gujarat
- **Purpose:** To manufacture semiconductor chips within India and strengthen the country's electronics manufacturing ecosystem.
- **Focus:** Chips used in automobiles, consumer electronics, industrial equipment, power management, and communication devices.
- **Significance:** Marks a major milestone under India's semiconductor manufacturing initiative.

About Semiconductor Fabrication Plant (Fab)

- **Meaning:** A semiconductor fabrication plant, or fab, is a facility where integrated circuits (computer chips) are manufactured on silicon wafers.
- **Technology Used:** Mature-node technology, which is widely used for producing reliable and cost-effective chips.

- Applications: Automotive electronics, smartphones, home appliances, medical devices, industrial machinery, and telecom equipment.

About Tata Electronics

- Parent Company: Tata Group
- Headquarters: Bengaluru, Karnataka
- Business: Manufactures electronic components and semiconductor products and provides electronics manufacturing services.

About India Semiconductor Mission (ISM)

- Launched: 2021
- Nodal Ministry: Ministry of Electronics and Information Technology (MeitY)
- Objective: To develop a robust semiconductor and display manufacturing ecosystem in India through financial and policy support.

Significance

- The project is expected to strengthen India's semiconductor supply chain, reduce import dependence, attract advanced technology investments, create skilled employment, and support the vision of 'Atmanirbhar Bharat' in electronics manufacturing.

Additional Key Facts

- Semiconductors: Essential components used in electronic devices such as smartphones, computers, vehicles, medical equipment, and defence systems.
- Dholera SIR: One of India's planned smart industrial cities and a major semiconductor manufacturing hub under development.
- India Semiconductor Mission (ISM): Provides incentives to attract global and domestic semiconductor manufacturers.

Exam Focus Points

- Company: Tata Electronics
- Project: India's first semiconductor chip fabrication (Fab) plant
- Location: Dholera SIR, Gujarat
- Technology: Mature-node (older-generation) semiconductor technology
- Mission: India Semiconductor Mission (ISM)
- Nodal Ministry: Ministry of Electronics and Information Technology (MeitY)
- Objective: Promote domestic semiconductor manufacturing and reduce import dependence.

Serum Institute Partners with Gates MRI to Develop Experimental Tuberculosis (TB) Vaccine



Why is it in News?

- The Serum Institute of India (SII) has partnered with Gates Medical Research Institute (Gates

MRI) to manufacture and supply an experimental tuberculosis (TB) vaccine. The partnership aims to improve global access to an affordable and effective TB vaccine, especially in low- and middle-income countries.

Key Considerations

- Organisation: Serum Institute of India (SII)
- Partner: Gates Medical Research Institute (Gates MRI)
- Disease: Tuberculosis (TB)

- Vaccine Candidate: M72/AS01E (Experimental TB Vaccine)
- Objective: To manufacture and supply an affordable TB vaccine worldwide if approved.
- Current Status: The vaccine is undergoing Phase III clinical trials to evaluate its safety and effectiveness.
- Target Countries: Primarily low- and middle-income countries with a high TB burden.

About M72/AS01E Vaccine

- Type: Experimental Tuberculosis (TB) vaccine.
- Purpose: Designed to prevent pulmonary TB in adults infected with Mycobacterium tuberculosis.
- Development: Originally developed by GlaxoSmithKline (GSK), with further development led by Gates MRI.
- Clinical Stage: Currently in Phase III clinical trials.

About Serum Institute of India (SII)

- Headquarters: Pune, Maharashtra.
- Founded: 1966.
- Founder: Dr. Cyrus Poonawalla.
- CEO: Adar Poonawalla.
- Significance: World's largest vaccine manufacturer by the number of doses produced.

About Gates Medical Research Institute (Gates MRI)

- Established: 2022.
- Headquarters: Cambridge, Massachusetts, United States.
- Supported By: Bill & Melinda Gates Foundation.
- Objective: To develop affordable vaccines and treatments for diseases that mainly affect low-income countries.

About Tuberculosis (TB)

- Cause: Mycobacterium tuberculosis bacterium.
- Transmission: Spreads through the air when an infected person coughs, sneezes, or speaks.
- Affected Organ: Mainly the lungs, but it can affect other organs as well.
- Global Goal: Eliminate TB as a public health threat under the WHO End TB Strategy.

Significance

- The partnership is expected to accelerate the production and global availability of a new TB vaccine if clinical trials are successful. It could significantly reduce TB-related illness and deaths, particularly in countries with a high disease burden such as India.

Additional Key Facts

- India: Has the world's highest burden of tuberculosis cases.
- BCG Vaccine: Currently the only licensed TB vaccine, mainly protecting children from severe forms of TB.
- WHO End TB Strategy: Aims to end the global TB epidemic by 2035 through improved prevention, diagnosis, and treatment.

Exam Focus Points

- Organisation: Serum Institute of India (SII)
- Partner: Gates Medical Research Institute (Gates MRI)
- Vaccine Candidate: M72/AS01E
- Disease: Tuberculosis (TB)
- Clinical Stage: Phase III Trial

Lets Revise

- ❖ Which European country agreed with India in July 2026 to expand cooperation in digitalisation, AI, 6G, quantum technologies, semiconductors, and emerging sectors?
Finland.
- ❖ Which Indian organisation represented the country in signing the BRICS Memorandum of Understanding on Cooperation in Standardisation during the 5th BRICS Heads of National Standardisation Bodies Meeting held in Bengaluru?
Bureau of Indian Standards (BIS).
- ❖ Which Article of the Constitution empowers the Supreme Court to pass any decree or order necessary for doing "complete justice", a power invoked in directing States and UTs to frame a policy for the early release of elderly and terminally ill prisoners?
Article 142 of the Constitution of India.
- ❖ The Reserve Bank of India's Financial Inclusion Index (FI-Index) measures financial inclusion based on which of the following three dimensions? **Access, Usage, and Quality.**
- ❖ Serhii Koretskyi, recently seen in the news, has been appointed as the Prime Minister of which country? **Ukraine.**
- ❖ Which country approved a nearly \$2 billion arms sale to Saudi Arabia in July 2026?
United States (US)
- ❖ What is the value of the arms sale approved by the US for Saudi Arabia? **Nearly \$1.96 billion**
- ❖ Which weapon system is included in the approved arms package for Saudi Arabia?
Advanced Precision Kill Weapon System (APKWS) II

- ❖ Which renowned American scholar of Islam passed away at the age of 86 in July 2026? **John L. Esposito**
- ❖ John L. Esposito was widely known for his research on which subject? **Islam and Muslim-Christian Relations**
- ❖ Which famous book on Islam was authored by John L. Esposito? **Islam: The Straight Path**
- ❖ Which organisation approved Reliance Jio's 1,600-satellite Low Earth Orbit (LEO) constellation project? **Indian National Space Promotion and Authorization Centre (IN-SPACe)**
- ❖ Which company received approval to establish a 1,600-satellite LEO constellation in India? **Reliance Jio Platforms Ltd.**
- ❖ How many satellites are proposed under Reliance Jio's LEO satellite constellation project? **Up to 1,600 satellites**
- ❖ Which company is set to establish India's first semiconductor chip fabrication (Fab) plant? **Tata Electronics**
- ❖ Where will Tata Electronics set up India's first semiconductor chip fabrication plant? **Dholera Special Investment Region (SIR), Gujarat**
- ❖ Which Indian vaccine manufacturer partnered with Gates Medical Research Institute to develop an experimental TB vaccine? **Serum Institute of India (SII)**
- ❖ Serum Institute of India has partnered with which organisation to manufacture an experimental tuberculosis vaccine? **Gates Medical Research Institute (Gates MRI)**
- ❖ What is the name of the experimental tuberculosis vaccine under Phase III clinical trials? **M72/AS01E**



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IMPORTANCE OF CURRENT AFFAIRS IN UPSC EXAMINATIONS

Current Affairs hold a crucial place in the preparation for the UPSC Civil Services Examination. A comprehensive understanding of recent national and international developments helps aspirants strengthen their General Studies foundation and develop a well-rounded perspective on important issues. Topics such as government policies, schemes, economy, international relations, science and technology, environment, defence, social justice, governance, reports, indices, appointments, awards, and major global events are highly relevant for both the Prelims and Mains examinations. Regular study of current affairs not only enhances factual knowledge but also improves analytical ability, critical thinking, answer-writing skills, and decision-making aptitude. Since UPSC questions often connect contemporary developments with static subjects, consistent preparation of current affairs enables aspirants to understand issues in depth and present balanced, informed, and relevant answers. It also plays an important role in Essay writing, Ethics, and the Personality Test, giving candidates a strong edge throughout the examination process.

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