

NEWS TODAY

GOOGLE MAKES BREAKTHROUGH IN QUANTUM COMPUTING

- Google claims to have made a **breakthrough in an important subfield called quantum error correction** which would go on to make quantum computing more accurate.
 - **Rather than storing information using bits represented by 0's or 1's** as conventional computers do, **quantum computers use qubits**, to encode information as 0's, 1's, or both at the same time.
- However **qubits are so sensitive that even stray light can cause calculation errors** and the problem worsens as quantum computer grows.
- To bridge this calculation error gap, Google** claimed to have made a breakthrough in **quantum error correction**.
 - Quantum error correction **protects information by encoding it across multiple physical qubits** (instead of relying on individual physical qubits) to form a "logical qubit".
- Quantum computing** is focused on **developing computer technology based on quantum theory principles**, which explains nature and behaviour of energy and matter on the quantum (atomic and subatomic) level.
 - It uses **two key principles of quantum physics**: superposition and entanglement.
 - **Superposition** means that each qubit can represent both 1 and 0 at the same time.
 - **Entanglement** means that qubits in a superposition can be correlated with each other; i.e., state of one (whether it is a 1 or a 0) can depend on state of another.

INTERNATIONAL CRIMINAL COURT (ICC) ISSUES ARREST WARRANT FOR VLADIMIR PUTIN FOR WAR CRIMES IN UKRAINE

- ICC stated that **Putin bears individual criminal responsibility for the abduction and deportation of Ukrainian children** since Russia's full-scale invasion began in February last year.
- War crimes are **serious violations of humanitarian laws during a conflict** (derived from 1949 Geneva Conventions).
 - War crimes include **torture, mutilation, corporal punishment, hostage taking and acts of terrorism**.
- International humanitarian law **lays down three principles to decide whether an individual or a military has committed a war crime**:
 - **Proportionality**: **Prohibits armies** from responding to an attack with **excessive violence**.
 - **Precaution**: Requires parties to **avoid or minimize harm to civilian** population.
 - **Distinction**: Between **civilian and belligerent populations** and objects.

	International Criminal Court (ICC)	International Court of Justice (ICJ)
Genesis	<ul style="list-style-type: none"> Established by Rome Statute, it is not part of the UN 	<ul style="list-style-type: none"> Established by United Nations Charter, it is Principal judicial organ of UN.
Subject Matter	<ul style="list-style-type: none"> Trial criminal offenses i.e. genocide, crimes against humanity, war crimes, crimes of aggression 	<ul style="list-style-type: none"> Settle legal dispute i.e. sovereignty, boundary disputes, maritime disputes, trade, natural resource etc.
Parties	<ul style="list-style-type: none"> Individuals either ratified member of ICC or accept the jurisdiction of ICC. India, Russia, US are not members. 	<ul style="list-style-type: none"> Only states either member of UN or ICJ or both. India is a member.
Jurisdiction	<ul style="list-style-type: none"> Criminal prosecution of individuals. 	<ul style="list-style-type: none"> Two types of jurisdiction: Legal disputes that are submitted to it by States, Advisory opinion. No jurisdiction to try individuals accused of war crimes or crimes against humanity
Composition of Court	<ul style="list-style-type: none"> Composed of eighteen judges elected to nine year terms and not re-elected for further terms 	<ul style="list-style-type: none"> Composed of fifteen judges elected to nine year terms and may be re-elected for up to two further terms
Appeal	<ul style="list-style-type: none"> Appeal is instituted by appeal chamber. 	<ul style="list-style-type: none"> No appeal provision for ICJ.

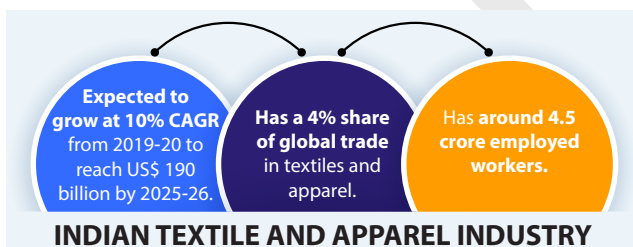
UNIQUE IDENTIFICATION AUTHORITY OF INDIA (UIDAI) ROLLED OUT NEW SECURITY MECHANISM FOR AADHAR AUTHENTICATION

- To deal with faster detection of spoofing attempts, UIDAI has implemented a **two-layer authentication system** to ensure that originality of **fingerprints** is captured in a more foolproof manner.
 - Artificial intelligence (AI)-based mechanism **captures both the fingerprint image and finger minutia** (major features of a fingerprint image).
- Development comes **amid concerns raised against possible misuse of Aadhaar** because of issues like:
 - Aadhaar system **treats all 10 fingerprints as one entity**, hence by varying a **set of fingers a new ID can be created**.
 - System is **unable to differentiate between a real fingerprint and a silicon imprint**.
 - It **does not conduct facial biometrics match while creating ID's**, thus allowing a same person to obtain different Aadhaar using mixed fingerprints.
- Aadhaar is a **12-digit unique identity number** that can be obtained by **residents of India**, based on their **biometric and demographic data**.
 - It is **issued by UIDAI**, a statutory authority under Ministry of Electronics & Information Technology, **on behalf of Government of India**.
- In **2018, Supreme Court (SC)** while upholding the Aadhaar scheme as constitutionally valid **provided certain riders regarding its use** for various services (refer box).

- **Aadhaar cannot be made mandatory:** for openings of a bank account and for getting mobile connections, for school admission.
- **Private companies cannot ask for Aadhaar.**

SEVEN PM MITRA (PRADHAN MANTRI MEGA INTEGRATED TEXTILE REGION AND APPAREL) PARK SITES ANNOUNCED

- Parks will come up in **Tamil Nadu, Telangana, Gujarat, Karnataka, Madhya Pradesh, Uttar Pradesh and Maharashtra**.
 - PM MITRA was **announced (Ministry of Textiles) in 2021-22 for a 7-year period up to 2027-28**.
 - It is **inspired by 5F vision of PM** (i.e. Farm to Fibre to Factory to Fashion to Foreign).



- **Key Features of Scheme**
 - Park will be developed by a **Special Purpose Vehicle (SPV)** owned by State Government and Government of India in PPP Mode.
 - **Ministry of Textiles will provide Development Capital Support @30%** of project cost with a maximum support of ₹ 500 Cr and ₹200 Crore per park for Greenfield and Brownfield parks respectively.
 - **Competitive Incentive Support up to Rs 300 crore per park** to incentivise speedy implementation.
 - State governments will provide **contiguous and encumbrance-free land parcel of at least 1000 acres**.
- **Significance of PM MITRA**
 - To **help achieve SDG 9** (Build resilient infrastructure, promote sustainable industrialization and foster innovation).
 - To **develop modern industrial infrastructure facility** for entire value-chain of textile industry.
 - Will **reduce logistics costs and improve competitiveness** of Indian Textiles.
 - Will **help in attracting investments, boosting employment generation**, providing plug and play facilities etc.

DABUR USED BIO RESOURCES FOR COMMERCIAL PURPOSES WITHOUT APPROVAL: NATIONAL BIODIVERSITY AUTHORITY (NBA)

- Under **Biological Diversity Act (BDA) 2002**, an **Indian entity has to give intimation to state biodiversity board (SBB)** while obtaining any bio-resources for commercial utilisation.
 - **Biological Resources include plants, animals, micro-organisms**, their parts, genetic material and by-products.
 - **Commercial utilisation** includes using such resources for **making drugs, food flavors, cosmetics, fragrance etc.**
- **BDA is implemented through a three tiered structure:** Biodiversity Management Committees (BMC) at local level, SBB at state level, NBA at National level.
- **Each of these structure are connected** for decision making processes on various issues, **including on issues of access and benefit sharing (ABS)**.
 - ABS refers to **way in which genetic resources may be accessed**, and how benefits from their use are **shared between people/countries using resources** (users) and people/countries **that provide them** (providers).
 - **International efforts for ABS** include Convention on Biological Diversity (CBD), Nagoya Protocol on ABS.
- **Biodiversity Act 2002 was enacted to address**
 - **Issues of conservation, sustainable use** of biological resources in the country.
 - **Issue related to access to genetic resources** and associated knowledge.
 - **Fair and equitable sharing of benefits** arising from utilization of biological resources to the country and its people.

GOVERNMENT BATS FOR SIMULTANEOUS ELECTIONS (SE)

- In a written reply to Lok Sabha, **Minister of Law stated that issue of holding SE** to Lok Sabha and State Assemblies has been **referred to Law Commission**.
 - Idea of SE was **proposed by Election Commission in 1983**. It was also suggested by Law Commission and NITI Aayog.
- Under SE, **Lok Sabha and State Assemblies elections will be synchronized together** such that voters in a particular constituency vote for both on the same day.
 - SE were the norm until 1967**. But following **dissolution of some Legislative Assemblies** in 1968 and 1969 and that of **Lok Sabha in 1970**, elections to State Assemblies and Parliament **have been held separately**.

Arguments in favour	Arguments against
<ul style="list-style-type: none"> Policy paralysis due to imposition of Model Code of Conduct over prolonged periods of time. Huge expenditures by political parties, individual candidates, etc. Engagement of security forces impacts their role in other security purposes. Disruption of normal public life and impact on functioning of essential services. 	<ul style="list-style-type: none"> Operational feasibility such as how to synchronize cycle for the first time. Constitutional requirements such as Curtailement and extension of terms of Lok Sabha/ State Legislative Assemblies, Amendment to provisions of Constitution (Article 83, 84, 172, 174, 356) etc. National and state issues are different, holding SE may affect judgment of voters.

ALSO IN NEWS

<p>Indian Renewable Energy Development Agency (IREDA)</p>	<ul style="list-style-type: none"> Cabinet approved listing of IREDA on the Stock Exchanges through an Initial Public Offer. <ul style="list-style-type: none"> It will help IREDA in raising a part of its capital requirement and reduce dependence on public exchequer. IREDA is currently a wholly owned Government of India, Mini-Ratna CPSE, engaged in financing of Renewable Energy and Energy Efficiency projects. <ul style="list-style-type: none"> It is registered as a Non-banking Financial Company (NBFC) with RBI. Recently, RBI has granted Infrastructure Finance Company status to IREDA.
<p>Commercial Courts</p>	<ul style="list-style-type: none"> Delhi High Court sought response from government on a petition seeking directions to set up more commercial courts in Delhi. Commercial Act, 2015 provides for a separate set of commercial courts to be set up by states at district level. State Governments/UTs may constitute commercial courts at the District level by notification after consultation with High Court. Persons having experience in commercial disputes can be appointed as judges of Commercial court by State governments with concurrence of Chief Justice of the High Court.
<p>AuditOnline Application</p>	<ul style="list-style-type: none"> AuditOnline has been acknowledged with World Summit on the Information Society (WSIS) Award 2023. <ul style="list-style-type: none"> WSIS is an annual award event coordinated by International Telecommunication Union to promote ICTs for achieving SDGs. Audit Online facilitates financial audit of accounts at all three levels of Panchayats, Urban Local Bodies (ULB) and Line department by Auditors. Application was developed by National informatics Center (NIC) as part of Panchayat Enterprise Suite under ePanchayat Mission Mode Project initiated by Ministry of Panchayati Raj.
<p>Kudumbashree</p>	<ul style="list-style-type: none"> President inaugurated silver jubilee celebration of Kudumbashree. Kudumbashree, the Kerala State Poverty Eradication Mission, was launched in 1998. <ul style="list-style-type: none"> It is one of the largest women's self-help networks in world that brings women from all spheres of life to fight for their empowerment rights. It is recognised as state Rural Livelihoods Mission (SRLM) under National Rural Livelihoods Mission (NRLM). President also launched Unnathi, an umbrella programme to create opportunities for employment and self-employment, among the youth belonging to SC and ST communities.

 Horseshoe Crab	<ul style="list-style-type: none"> • Horseshoe crabs are disappearing from spawning grounds along Odisha's Chandipur and Balaramgadi coast. • Horseshoe crabs are considered living fossils meaning they have existed nearly unchanged for at least 445 million years, well before even dinosaurs existed. • There are four species of horseshoe crabs (found in North America and Southeast Asia). • Blood of Horseshoe crab is very important for preparation of rapid diagnostic reagent (used in chemical reactions).
 Namdapha National Park	<ul style="list-style-type: none"> • A tiger was recently spotted in the national park, after a gap of eight years. • Namdapha, a National Park and Tiger Reserve, lies on the border between India and Myanmar within Changlang District of Arunachal Pradesh. • It comprises the catchment area of Noa-Dihing River, which is a tributary of the Brahmaputra. <ul style="list-style-type: none"> ➤ Namdapha is name of a river which originates from Daphabum (Dapha is name of hill, Bum means peak of hill) and meets Noa-Dihing river. • Flora: Sumatran pine, Spruce, Orchid Bamboo etc. • Fauna: Barking deer, Elephants, Asiatic golden cat, Clouded leopard, snow leopard etc.
 Pennaiyar river (Ponnaiyar)	<ul style="list-style-type: none"> • Time limit fixed by Supreme Court for constitution of an inter-State River water disputes tribunal for Pennaiyar river is over. <ul style="list-style-type: none"> ➤ Dispute is between Tamil Nadu and Karnataka. • Pennaiyar River rises on eastern slope of Nandidurg Mountain, in Chennakaseva Hills of eastern Karnataka. <ul style="list-style-type: none"> ➤ Ponnaiyar Basin is second largest interstate East flowing river basin. ➤ It lies between the Pennar and Cauvery basins. Basin is bounded by various ranges of Eastern Ghats like Velikonda Range, Nagari hills, Javadu hills, Shevaroy hills, Chitteri hills and Kalrayan hills and in East by Bay of Bengal.
 Matua Community	<ul style="list-style-type: none"> • PM has urged people to visit Matua Maha Mela in West Bengal. • Mela is organised on birth anniversary of Shri Harichand Thakur (1812-1878), who was the founder of the sect of Vaishnavite Hinduism called Matua. <ul style="list-style-type: none"> ➤ He wrote couplets in Bengali and stressed on education and strong organisation as the primary modes of community empowerment. ➤ He wanted to establish a classless, casteless society. • Matuas are Namasudras, a Scheduled Caste group considered untouchable during 19th C.E. <ul style="list-style-type: none"> ➤ Matuas migrated to India during Partition and after the creation of Bangladesh.
 Tribes in News	<p>Kattunayakan Tribe</p> <ul style="list-style-type: none"> • Oscar award to documentary Elephant Whisperers is a tribute to conservation legacy of the Kattunayakan tribe. • They are one of the 75 Particularly Vulnerable Tribal Groups (PVTGs) of India. • Found in parts of Tamil Nadu and Kerala (Nilgiris and surrounding region). • Language: mixture of all Dravidian languages. • Religion practices: strongly rooted in their culture and worship animals, birds, trees, rocks and snakes and almost everything natural. <p>Tiwa Tribe</p> <ul style="list-style-type: none"> • Tiwa boys performed rituals wearing headgears called sakrashata during Sokra Misawa festival in Assam. • About Tiwa tribe: <ul style="list-style-type: none"> ➤ Also known as lalung tribe, it is the indigenous tribal people living in Assam and Meghalaya. ➤ They are recognized as Scheduled Tribe (ST). ➤ Two groups: Hill Tiwas (speak Tibeto Burman language) and Plains Tiwas (speak Assamese). ➤ Major festivals: Sogra, Wan Shuwa, Yangli, Khel Chawa, Kalika Puja etc.