

WHAT IS VOTER VERIFIABLE PAPER AUDIT TRAIL (VVPAT)?



Voter Verifiable Paper Audit Trail (VVPAT) was first introduced in India in the **2014 Lok Sabha elections**. It is an independent system that consists of two parts, namely, a VVPAT Printer and VVPAT Status Display Unit (VSDU) attached to the Electronic Voting Machines (EVMs), that **allow the voters to verify that their votes** are cast as intended.

- **When a vote is cast, a slip is printed** containing the serial number, name, and symbol of the candidate and remains exposed through a transparent window for 7 seconds. Thereafter, this printed slip automatically gets cut and falls into the sealed drop box of the VVPAT.
- **How is VVPAT used for verification?**
 - The results of EVMs can be verified **using the slips kept in the drop boxes** of VVPAT machines. It can be accessed by the polling officials, but not by the voters.
 - The paper slips are deemed to be **more authoritative than EVM tallies** in cases where VVPAT slips are utilised to verify votes.
 - **Voter verification**, however, is only **done in extreme circumstances**, such as when there are accusations of fraud or miscalculation.
 - **The ECI has the authority to request** that votes be verified using VVPAT slips in response to such complaints.
 - **At present, the VVPAT slips are counted in a randomly-selected polling station** in each Assembly constituency or Parliamentary constituency, depending upon the nature of the elections being held.
- The ECI has clarified that **EVMs and VVPATs are separate entities** and are not connected to any network.
- These machines are **developed by the Electronics Corporation of India Limited (ECIL) and Bharat Electronics Ltd (BEL)**.

HISTORY OF RESERVE BANK OF INDIA

About Reserve Bank of India (RBI)

- The Reserve Bank of India, abbreviated as RBI, is India's central bank and regulatory body responsible for regulation of the Indian banking system.
- It is responsible for the control, issue and maintaining supply of the Indian rupee.
- The RBI was established in 1934, under the **Reserve Bank of India Act**.
 - The bank was set up based on the recommendations of the 1926 Royal Commission on Indian Currency and Finance, also known as the **Hilton Young Commission**.
- Though privately owned initially, it was **nationalized in 1949** and since then fully owned by the Ministry of Finance, Government of India.

Composition of the RBI

- The overall direction of the RBI lies with the **21-member central board of directors**, composed of:
 - One Governor;
 - Four Deputy Governors;
 - Two Finance Ministry Representatives (usually the Economic Affairs Secretary and the Financial Services Secretary);
 - Ten government-nominated Directors; and
 - Four Directors who represent local boards for **Mumbai, Kolkata, Chennai, and Delhi**.
 - Each of these local boards consists of five members who represent regional interests and the interests of co-operative and indigenous banks.
- The first Governor of the RBI was the Australian Sir Osborne Arkell Smith. **Sir C D Deshmukh** was the first Indian to become Governor.

Journey of the RBI

- 1935-1949:

- The Reserve Bank of India was founded on 1 April 1935 to respond to economic troubles after the First World War.
- India was the first colony to have its own central bank.
- **1950-1960:**
 - In the 1950s, the Indian government developed a centrally planned economic policy that focused on the agricultural sector.
 - The administration nationalized commercial banks and established, based on the Banking Companies Act, 1949, a central bank regulation as part of the RBI.
 -]Furthermore, the central bank was ordered to support economic plan with loans.
- **1961-1968:**
 - As a result of bank crashes, the RBI was requested to establish and monitor a deposit insurance system.
 - The government of India restructured the national bank market and nationalized a lot of institutes.
 - As a result, the RBI had to play the central part in controlling and supporting this public banking sector.
- **1969-1984:**
 - In 1969, the Indira Gandhi-headed government nationalized 14 major commercial banks.
 - The central bank became the central player and increased its policies a lot for various tasks like interests, reserve ratio and visible deposits.
- **1985-1990:**
 - The Indian financial market was a leading example for so-called "financial repression".
 - The Discount and Finance House of India began its operations in the monetary market in April 1988; the National Housing Bank, founded in July 1988, was forced to invest in the property market and a new financial law improved the versatility of direct deposit by more security measures and liberalisation.
- **1991-1999:**

- The national economy contracted in July 1991 as the Indian rupee was devalued.
- The currency lost 18% of its value relative to the US dollar, and the **Narsimham Committee** advised restructuring the financial sector by a temporal reduced reserve ratio as well as the statutory liquidity ratio.
- New guidelines were published in 1993 to establish a private banking sector.
- The central bank deregulated bank interests and some sectors of the financial market like the trust and property markets.
- **2000-2009:**
 - The Foreign Exchange Management Act, 1999 came into force in June 2000.
 - The national economy's growth rate came down to 5.8% in the last quarter of 2008–2009 and the central bank promotes the economic development.
- **Since 2010:**
 - In 2016, the Government of India amended the RBI Act to establish the Monetary Policy Committee (MPC) to set.
 - This limited the role of the RBI in setting interest rates, as the MPC membership is evenly divided between members of the RBI (including the RBI governor) and independent members appointed by the government.
 - In April 2018, the RBI announced that "entities regulated by RBI shall not deal with or provide services to any individual or business entities dealing with or settling virtual currencies," including **Bitcoin**.

LEAP SECOND



Earth's changing rotation may prompt clocks to skip a second, potentially necessitating a "negative leap second" around 2029.

Leap Second is used as a measure to combat the long-term **slowdown in the Earth's rotation** which is caused by the constant melting and refreezing of ice caps.

- It is **added every now and then to Coordinated Universal Time (UTC)** in order to synchronize a clock worldwide with the Earth's ever **slowing rotation**.

- UTC consists of a time scale that combines the output of more than 300 highly precise Atomic clocks worldwide. Atomic clocks are very accurate and are stable within 1 second over a period of millions of years.
 - The system of leap seconds was introduced in the early 1970s. So far, 27 positive leap seconds have been added.
- On the other hand, the **Astronomical Time** known as **Universal Time (UT1)** refers to the Earth's rotation around its own axis and determines the length of a day.
- **Reason for addition:** The **Earth's rotation** around its own axis is **not regular**, as sometimes it speeds up and sometimes it slows down, due to various factors including the moon's gravitational Earth-braking forces that often results in ocean tides.
- As a result, Astronomical Time (UT1) gradually falls out of sync with Atomic time (UTC), and as and when the difference between UTC and UT1 **approaches 0.9 seconds**, a "Leap Second" is added to UTC through Atomic clocks worldwide.
- A leap second is normally inserted either on June 30 or December 31.

What is Negative Leap second?

- It is a second that is **subtracted from our clocks** to keep them in sync with the Earth's rotation.
- Till date **no negative leap second** was introduced because, in the last few decades the Earth's rotation has generally been a bit slow
- The **International Earth Rotation and Reference Systems Service (IERS)** monitors the Earth's rotation, and takes decisions on when to add or subtract a leap second.
- Since Earth is **spinning faster than** usual recently, timekeepers had thought of using negative leap seconds for the first time.
- In other words, they thought of subtracting leap seconds from our clocks to synchronise them with Earth's rotation.

WHAT IS ZERO FIR?

Recently, police registered a zero FIR case against a former Minister of Telangana for allegedly making objectionable comments against the Telangana Chief Minister.



About Zero FIR:

- It refers to a First Investigation Report (FIR) that is **registered irrespective of the area** where the offense is committed. The police in such a case can no longer claim that they have no jurisdiction. It is later **transferred to** the police station that has the **actual jurisdiction** so that the investigation can begin.
- It was introduced on the recommendation of the **Justice Verma Committee** formed at the backdrop of the brutal Nirbhaya gang rape in Delhi in 2012.
- This puts a legal obligation on the police to begin an investigation and take quick action without the excuse of the absence of jurisdiction.
- **Objective:** It is to ensure the victim doesn't have to run from pillar to post to get a police complaint registered. The provision is meant to **provide speedy redressal** to the victim so that timely action can be taken after the filing of the FIR.

What is an FIR?

- It is information recorded by a police officer on duty given either by the aggrieved person or any other person to the commission of an alleged offence.
- It is **not defined** in the Indian Penal Code (IPC), Code of Criminal Procedure (CrPC), 1973, or in any other law.
- In police regulations or rules, information recorded under **Section 154 of CrPC** is known as First Information Report (FIR).

DIGITAL INDIA TRUST AGENCY:



• The Reserve Bank of India is considering establishing a Digital India Trust Agency (DIGITA) to combat cyber fraud and illegal lending apps.

About Digital India Trust Agency:

- It will be responsible for **stopping illegal lending apps** from popping up. It will enable the verification of these digital lending apps and will **maintain a public register** of these verified applications.
- Any app which will not carry the “**verified**” tag of **DIGITA**, will be considered **unauthorised**.
- **Significance:** This will create an important and much-needed checkpoint in the fight against online financial fraud.

What is digital lending?

- It is a **remote and automated lending process**, largely by use of seamless digital technologies. It generally involves **three parties** – a lender, a lending service provider (including a digital lending platform) and a borrower.
- It involves lending through **web platforms or mobile apps**, utilising technology in customer acquisition, credit assessment, loan approval, disbursement, recovery and associated customer service.
- It includes products like Buy Now, Pay Later (BNPL), which is a financing option (or simply a short-term loan product). It allows one to buy a product or avail a service without having to worry about paying for it immediately.

WHAT IS OZONE?

An international team of scientists, including from India, has discovered strong evidence indicating the presence of ozone on Jupiter’s moon Callisto.



Ozone is a gas composed of **three atoms of oxygen**. It is both a **natural and a man-made product** that occurs in the Earth's upper atmosphere (Stratospheric ozone) and lower atmosphere (the troposphere).

- Stratospheric ozone is formed naturally through the interaction of solar ultraviolet (UV) radiation with molecular oxygen (O₂).

- The "ozone layer," approximately **6 to 30 miles** above the Earth's surface, reduces the amount of harmful UV radiation reaching the Earth's surface.

Key facts about Callisto:

- It is one of **Jupiter's largest moons** and the third-largest moon in the Solar System after Ganymede and Titan.
- **Composition:** It is primarily composed of **water ice, rocky materials, sulphur dioxide,** and some organic compounds. These substances make the moon a potential candidate for supporting life in the Solar System beyond the earth.
- Its surface is heavily cratered, indicating a long history of being struck by asteroids and comets. It also lacks the extensive seismic activity seen on some of Jupiter's other moons, such as Io and Europa.

INDIA METEOROLOGICAL DEPARTMENT



The India Meteorological Department (IMD) issued an updated **Seasonal outlook for hot weather season (April to June) 2024.**

India Meteorological Department was established in 1875. It is the National Meteorological Service of the country and the principal government agency in all matters relating to **meteorology and allied subjects.** The **Director General of Meteorology** is the Head of this organization.

- There are 6 Regional Meteorological Centres, each under a Deputy Director General with headquarters at Mumbai, Chennai, New Delhi, Calcutta, Nagpur and Guwahati.
- **Mandate:**
 - To take meteorological observations and to provide current and **forecast meteorological information** for optimum operation of weather-sensitive activities like agriculture, irrigation, shipping, aviation, offshore oil explorations, etc.

- To warn against **severe weather phenomena** like tropical cyclones, norwesters, duststorms, heavy rains and snow, cold and heat waves, etc., which cause destruction of life and property.
 - To provide **meteorological statistics** required for agriculture, water resource management, industries, oil exploration and other nation-building activities.
 - To conduct and **promote research** in meteorology and allied disciplines.
 - **Nodal ministry:** Ministry of Earth Sciences (MoES)
 - **Headquarter:** New Delhi.
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INDIA METEOROLOGICAL DEPARTMENT (IMD)

India Meteorological Department (IMD)

- **About**
 - The IMD is a government agency that is responsible for weather forecasting, seismology, and meteorological observations.
 - It was established in 1875 and is headquartered in New Delhi.
 - The IMD has hundreds of observation stations across India and is the country's National Meteorological Service.
 - **Mandate:**
 - Observations: Taking meteorological observations
 - Forecasting: Providing current and forecast information for weather-dependent activities
 - Giving warnings against severe weather phenomena
 - Statistics: Providing met-related statistics
 - Research
 - **Nodal Ministry:** Ministry of Earth Sciences of the Indian Government
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