**SHORTNEWS:**

**1.DHRUVA POLICY**

**Context**: The government has introduced the **Dhruva Policy to modernize how digital addresses are structured and managed across** India using geospatial technology.

**About DHRUVA (Digital Hub for Reference and Unique Virtual Address)**

- The DHRUVA envisions a **standardized, interoperable, and geocoded digital addressing system** which is aimed at building a **national-level Digital Address as Digital Public Infrastructure.**
- **Based on:** DHRUVA is based on its core concept of **Address-as-a-Service (AaaS).**
    - AaaS is an **array of services associated with address data management** to support secure efficient interactions between users, government entities, and private sector organizations.
- **Aim:** To establish address management as core public infrastructure enabling seamless data integration across public and private sectors.

**Features**

- **Digital Postal Index Number (DIGIPIN)**: It is an **open source nationwide geo-coded addressing system dividing India into approx. 4m x 4m grids** and assigns each grid **a unique 10-character alphanumeric code** based on **latitude and longitude coordinates**
- **Interoperability**: The DHRUV system is **interoperable across government, citizens and private business** to co-develop solutions that are secure and inclusive.
- **Privacy**: It ensures a secure, consent-based sharing of address information across public and private sectors.
- **Indigenous:** Its open-source architecture supports domestic innovation and **built entirely on indigenous technology**

**Application**

- **Catalyse Innovation:** DHRUVA will catalyze innovation across key sectors such as governance, e-commerce, logistics, and financial inclusion
- **Efficient Service Delivery**: It is publicly accessible and supports improvements in emergency response, logistics efficiency, and citizen service delivery.
- **Emergency Response:** The geo coded addressing system will be particularly useful for providing immediate and speedy emergency response like ambulance service, fire rescue service.
- **Logistics:** DHRUV will help in improving the logistics bottleneck in the country.

**2.GENESIS OF A PLANET: NEW CLUES FROM ORION**

**Context:** Recently, astronomers reported the first direct evidence of **rock vapour crystallising into solid matter** around a young star **HOPS-315** in **Orion.**

**Key Evidences on Genesis of a Planet**

- Using the **James Webb Space Telescope and ALMA,** researchers observed **crystalline silicates** and **silicon monoxide gas** just **2.2 AU from the star HOPS-315 in Orion.**

    - **1 AU (Astronomical Unit)** is the average distance ( 149.6 million km.) between **Earth and the Sun.**

- The presence of **forsterite, enstatite,** and **tentative silica crystals** matches minerals found in **Earth's primitive meteorites,** confirming similar condensation processes.
- Spectral data and simulations revealed that **dust evaporates at 1,300 K,** forms vapour, then cools and re-condenses into **solid crystal shard,** which is the very first planetary seeds.

**About Genesis of a Planet**

- The formation of planets is a multi-stage, long-duration cosmic process, beginning inside the **swirling disc of gas and dust** called a **protoplanetary disc** that surrounds **a newborn star.**
- **Inside this disc,** microscopic **dust grains collide, stick, grow into rocks,** and eventually form full-sized planets while **gases help shape atmospheres** and orbits.

**About Orion**

- The Orion often refers to the **Orion Arm**, a **minor spiral arm** of the **Milky Way Galaxy.**
- It hosts the **Orion Nebula, a massive star-forming region** approximately **1,344 light-years away and** many young stars and protoplanetary discs.
    - A light-year is the distance light travels in one year, about **9.46 trillion kilometers.**

**3.DOTCOM BUBBLE**

**Context:** Recently, analysts observed that the **concentration of tech stocks in U.S. markets** has surpassed levels seen during the **1990s dotcom bubble.**

**About the Dotcom Bubble**

- **Origins:** The dotcom bubble emerged in the late 1990s amid massive investor enthusiasm for internet-based companies with little or no profits.
- **Market Impact:** The **Nasdaq peaked in March 2000** but crashed by **65% within a year, taking 14 years to regain that level.**
- **Stock Valuations:** During the bubble, many tech stocks traded at extremely high earnings multiples, with frenzied IPOs and speculation fueling unsustainable growth.

**About the AI Boom**

- **Current Landscape:** In 2025, tech companies **make up 34%** of the **S&P 500** market cap **, higher than the 33% in 2000.**
- **Top Tech Dominance:** Eight of the top 10 U.S. firms by market cap are **tech giants like Apple, Nvidia, and Microsoft,** forming **40% of the S&P 500.**
- **Valuations and Risks:** While tech valuations are high (S&P Tech at **29.5x forward earnings** ), they **remain below the dotcom peak of nearly 50x.**
- **Capital Requirements:** Generative AI growth demands $2.9 trillion in global data center investment through 2028, posing near-term profitability challenges.

- **Caution Flags:** If AI progress slows or disruptors alter industry forecasts, overvalued tech stocks could face a sharp correction.

**4.US WITHDRAWAL FROM UNESCO**

**Context:** Recently, UNESCO Director-General Audrey Azoulay expressed deep regret over the U.S. decision to withdraw from UNESCO.

**About the U.S. Withdrawal**

- The U.S. President Donald Trump has announced a second withdrawal of the United States from UNESCO, effective **December 2026.**
    - This marks a repeat of the 2017 withdrawal under his earlier administration.
- **Reason of Withdrawal:** The U.S. claims UNESCO promotes **divisive social and cultural agendas**, not aligning with its national interests.
    - The reasons cited by the U.S. **remain unchanged since 2017,** despite reduced political tensions and significant organizational reforms.

**About United Nations Educational, Scientific and Cultural Organization (UNESCO)**

- **Introduction:** UNESCO was **established in 1945** to promote peace and security through international cooperation in education, science, culture, and communication.
- **Membership**: The Organization has **194 Members** and **12 Associate Members.**
- **Global Initiatives:** Oversees **2,000+ World Heritage sites, Biosphere Reserves,** and **Geoparks.**
    - **Coordinates 13,000+ schools,** research institutions, university chairs, and national commissions worldwide.

**5.WINTER FOG EXPERIMENT (WIFEX)**

**Context:** In July 2025, the **Winter Fog Experiment (WiFEX)** completed ten years of advancing **fog science** and **forecasting across North India.**

**About WiFEX**

- WiFEX was **launched in 2015** at **Indira Gandhi International Airport (IGIA), New Delhi**, by the **Indian Institute of Tropical Meteorology (IITM)** under the **Ministry of Earth Sciences (MoES)**.
- **Supported by:** The **India Meteorological Department (IMD)** and the **National Centre for Medium Range Weather Forecasting (NCMRWF).**
- **Milestone :** WiFEX has grown from a **single-airport project** to a **region-wide observational network** covering Jewar Airport (Noida) and Hisar (Haryana).
    - It is one of the few long-term open-field experiments globally dedicated to studying winter fog
- **Objective:** To improve the understanding and forecasting of winter fog, particularly in the Indo-Gangetic Plain, with a focus on reducing its adverse impacts on aviation.
- **Next Phase (WiFEX-II):** WiFEX-II aims to deliver localized, runway-specific fog forecasts for enhanced airport safety across North India.

**5.SAFAI APNAO, BIMAARI BHAGAO (SABB) 2025 CAMPAIGN**

**Context**: MoHUA recently launched a nationwide campaign for monsoon preparedness, cleanliness, and public health.

**Key Objectives of the campaign**

- Prevent **monsoon-related diseases** (malaria, dengue).
- Promote '**6 Swachhata Mantras': clean hands, homes, neighbourhoods, toilets, drains, public spaces.**
- Enhance **urban safety and community participation**.