



drishti

## Important Facts for Prelims (21st February 2019)

---

 [drishtias.com/printpdf/important-facts-for-prelims-21st-february-2019](https://www.drishtias.com/printpdf/important-facts-for-prelims-21st-february-2019)

### New-Universe Map

---

- The scientists have published a **new map of the night sky** and discovered hundreds of thousands of galaxies which were previously unknown.
- The discovery was made using the **Low-frequency Array (LOFAR) telescope**.
- LOFAR can detect light sources which optical instruments **cannot see using radio astronomy**.
- The discovery will shed new light on some of the Universe's secrets, including the physics of black holes and how clusters of galaxies evolve.
- **Radio Astronomy:** Radio astronomy allows scientists to detect radiation **produced when massive celestial objects interact**.
- **LOFAR Telescope:** The LOFAR telescope is made up of a **network of radio antenna** across **seven countries in Europe**, forming the equivalent of a 1,300-km diameter satellite dish.

LOFAR is developed by a **consortium of knowledge institutes**, universities and industrial parties, led by **ASTRON-Netherlands Institute for Radio Astronomy**.

### VIVID 2019

---

VIVID-**Vision Insight and Voices as India goes Digital**- the District Informatics Officer (DIO) meet, was organised by **National Informatics Centre (NIC)**.

### National Informatics Centre

- NIC provides nationwide ICT infrastructure to support e-Governance services and various initiatives of Digital India.
- It is part of the **Ministry of Electronics and Information Technology's Department of Electronics & Information Technology**.

- The meet is held as an initiative to interact with the DIO's and to share their experiences as well as contribution, as the digital change-makers at the grassroots level in the States.
- **VIVID started in 2017, as an annual event**, with the objective to empower NIC officials in the field of technology.

## Attukal Pongala

---

- The Attukal Pongala held in **Attukal Temple, Thiruvananthapuram, Kerala** and is the largest **congregation of women** for a **festival in the world**.
- Pongala, which means 'to boil over', is the ritual in which women prepare sweet payasam (a pudding made from rice, jaggery, coconut and plantains cooked together) and offer it to the Goddess or 'Bhagavathy'.
- The ritual can **only be performed by women** and the streets of the city are known to be jam-packed with faithful devotees during the time of the festival.
- The Goddess-fondly referred to as 'Attukalamma' is said to be appeased by this ritual.
- The Attukal Pongala entered the **Guinness Book of Records as the largest gathering of women in 2009**.

## Western Disturbance

---

- According to India Meteorological Department (IMD), this winter season's most powerful Western Disturbance (WD) is all set to hit north India.
- Already, six to seven WDs have affected north India in February 2019, while a few more western disturbances are expected by March 1.
- WD or the areas of "**disturbed air pressure**" traveling to India from the **west** are a **regular feature through the winter season**.
- These are basically "**extra-tropical storms**" or **low pressure systems** originating **outside the tropical regions**.
- Unlike a tropical cyclone which is formed in the lower atmosphere, a temperate cyclone (like WDs) is **usually formed in the upper atmosphere**. Therefore, they can **travel greater distances and can hence affect large areas of land** (sometimes can travel eastwards along the sub-Himalayan belt and reach up to Arunachal Pradesh).
- The factors that determine the strength of WDs are the **location and intensity of the jet stream** and the **amount of moisture being carried by the low-pressure system**.
- The **westerly jet streams (massive fast winds traversing the earth from west to east)** carry them.
- The rain and snow they bring in their wake to north India and neighbouring regions is formed from the **moisture they carry from the Atlantic Ocean or the Mediterranean Sea**.

- They help **sustain Himalayan glaciers** and the local ecology and **provide nourishment to winter crops (Rabi Crops- wheat, barley, mustard, gram, lentil, etc.)**.
- They are also **associated with cloudy skies** and an **increase in night-time temperatures** in parts of north India. They can also cause strong winds that help **disperse suspended pollutants** in the smog-filled cities of the region, including New Delhi.