

May - 29

TNPSC BITS

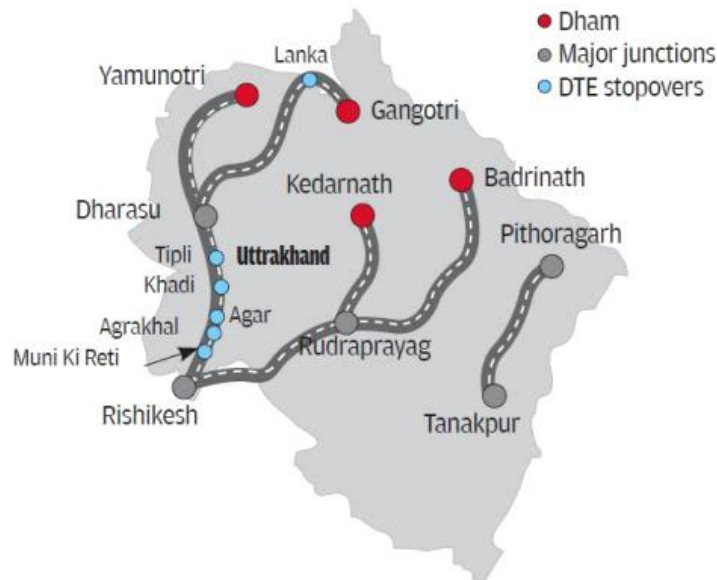
- ❖ India's Aarogya Setu has become the world's largest contact tracing app, reaching over 11 crore 40 lakh people in just 40 days.
- ❖ The World Health Organisation's (WHO) recently announced moratorium on testing hydroxychloroquine (HCQ), the controversial anti-malarial drug, for treating COVID-19.
- ❖ Google Play Store has approved the BevQ app which will be used to distribute liquor in Kerala.
- ❖ The government has launched the bug bounty programme that will be hosted by the MyGov team.
 - The programme will enable security researchers to avail rewards for finding security vulnerabilities within the aarogya setu app.
- ❖ The British author J.K. Rowling released first two chapters of her new Children's book "The Ickabog".
 - The Ickabog is her first children's book since Harry Potter and the Deathly Hallows was published in 2007.

NATIONAL

Chamba Tunnel

- ❖ It is a 440-m tunnel constructed by the Border Roads Organisation (BRO) below the densely populated Chamba town on the Rishikesh-Dharasuroad National Highway in Uttarakhand.
- ❖ The report further noted that India is home to 3, 30,400 HNWI's (High-Net-Worth Individuals - individuals with USD 1 million or more in net assets).
- ❖ The Tunnel has been dug by the Border Road Organization under the Ministry of Defence.
- ❖ It is under the project of Char Dham Pariyojana Project.
- ❖ The project involves developing and widening 900-km of national highways connecting the holy Hindu pilgrimage sites of Badrinath, Kedarnath, Gangotri, and Yamunotri.
- ❖ It is a programme taken up by the Ministry of Road Transport and Highways.

Proposed Char Dham highway



Domicile rules for J&K

- ❖ The Ministry of Home Affairs amended a 2010 legislation, the Jammu and Kashmir Civil Services (Decentralisation and Recruitment Act).
- ❖ It has substituted the term “permanent residents” with “domiciles of UT [Union Territory] of J&K.”
- ❖ It has redefined domicile through Jammu and Kashmir Reorganization (Adaption of state laws) order, 2020 issued under the Jammu & Kashmir Reorganisation Act, 2019.
- ❖ The 2010 Act pertained to employment in the Civil Services comprising “district, divisional and State” cadre posts.
- ❖ Earlier, only permanent residents of J&K were eligible to apply for gazetted and non-gazetted posts.
- ❖ The power to issue domicile certificates has been vested in the tehsildar (revenue officer).

About Domicile

- ❖ Domicile - The country that a person treats as their permanent home.
- ❖ It is a place where one makes their permanent home and where one is considered to be a permanent resident.
- ❖ An example of one’s domicile is the home state where one live.



ECONOMY

FSDC

- ❖ Recently, the government had included ministry of electronics and information technology (MeitY) secretary in the FSDC in view of the increased focus of the government on digital economy.
- ❖ Financial Stability and Development Council (FSDC) is constituted in 2010.
- ❖ It is not a statutory body.
- ❖ The Council is chaired by the Union Finance Minister and
- ❖ Its members are
 - Governor, Reserve Bank of India;
 - Finance Secretary and/or Secretary, Department of Economic Affairs;
 - Secretary, Department of Financial Services;
 - Chief Economic Adviser, Ministry of Finance;
 - Chairman, Securities and Exchange Board of India, etc.

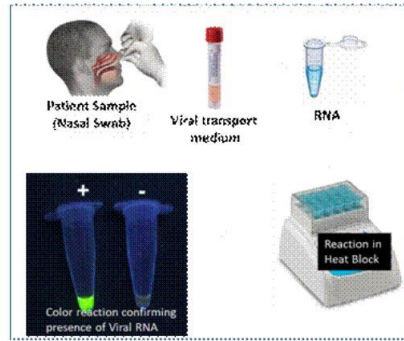
SCIENCE AND TECHNOLOGY

Cloud Atlas

- ❖ Astronomers from Canada, US & United Kingdom have developed a Cloud Atlas.
- ❖ It will enable them to predict which cloud can be expected on hot exoplanets like Jupiter.
- ❖ The cloud can be any from smoggy methane haze to sapphire.

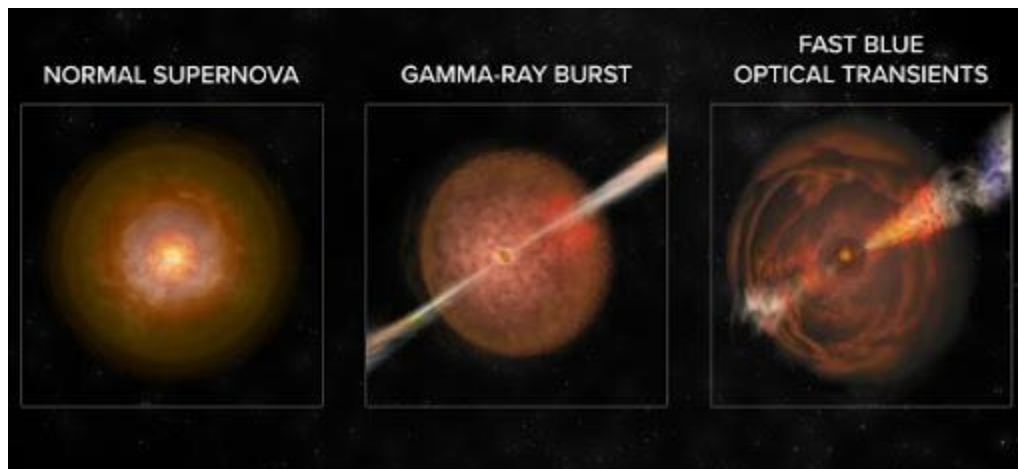
RT - Lamp Based test

- ❖ The CSIR-IIIM & Reliance Industries Limited (RIL) is to develop this test for Coronavirus.
- ❖ RT-Lamp Test is Reverse Transcriptase-Loop Mediated Isothermal Amplification.
- ❖ It is a nucleic acid based test carried out from nasal/throat swab sample from patients.
- ❖ While the current COVID-19 testing is done by real-time PCR their components are mostly imported.
- ❖ Further these tests are expensive; require highly trained manpower.
- ❖ On the other hand, the RT-LAMP test can be done in a single tube with minimal expertise in a very basic lab setup.



Fast Blue Optical Transient (FBOT)

- ❖ A new astronomical transient that is faster, brighter, and heavier at radio wavelengths has been spotted.
- ❖ The USA's Northwestern University-led team determined that the anomaly is the third fast blue optical transient (FBOT) ever captured in X-ray and radio wavelengths.
- ❖ It was after a bright burst was visually captured, in 2016, by the astronomers in a tiny galaxy 500 million lightyears away from Earth.
- ❖ The most famous FBOT is AT2018COW (“The Cow”) - a rare event that appeared to be the birth of a neutron star or black hole.



SERS Sensing

- ❖ The Institute of Nano Science and Technology (INST) has developed a hybrid Surface-Enhanced Raman Spectroscopy (SERS) platform of Molybdenum disulfide (MoS₂, an inorganic compound) nanostructure decorated with gold Nanoparticles (AuNPs).



- ❖ The SERS is a commonly used sensing technique in which inelastic light scattering by molecules is greatly enhanced when the molecules are adsorbed onto corrugated metal surfaces such as silver or gold nanoparticles (NPs).
- ❖ SERS detection has been emerging as a powerful tool for the detection of a variety of analytes due to its very high sensitivity and fingerprinting recognition capabilities.

