Chitra GeneLAMP-N

- The Chitra GeneLAMP-N developed by the Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST), Thiruvananthapuram
- The Chitra technology uses a method called Loop mediated isothermal amplification (LAMP).
- The objective, like that of the gold-standard RT-PCR tests, is the same: to detect the presence of viral RNA. Both achieve this via a series of chemical transformations.
- The LAMP method is said to be faster but is a relatively newer technology, more complicated in its design and has not been tested extensively for COVID-19 detection.

N gene test

- Most RT-PCR kits focus on two different genes, the E (envelope) gene and the RdRP (RNA dependent RNA polymerase) gene.
- The World Health Organization recommends a E and RdRP test, while the U.S.’s Centers for Disease Control and Prevention (CDC) requires an N gene test.
- The N gene test is a confirmatory test and widely employed in Germany and China, among other countries.
- However, the design of it is complicated and can be expensive.
- The CDC protocol says three regions of the N gene must be analysed but the Chitra-model tests two to confirm the identity of the virus.