VTM kits

- Indian Institute of Technology (IIT) Guwahati, in association with RR Animal Healthcare Ltd and Guwahati Medical College and Hospital (GMCH), has developed low-cost diagnostic kits.
- These are Viral Transport Media (VTM) kits, RT-PCR kits, and RNA isolation kits.
- The VTM kits are the first-stop source used to collect nasal and oral swab specimens from an individual source to a laboratory safely for culture and testing.
- During this period, the virus, if present, in the sample specimens should remain intact until the testing procedure is completed.
- The kit consists of a comprehensive solution specially formulated for the collection and transport of SARS-CoV-2.
- To bring down the cost of kits, we have used material that are available in the local market and they are as per the World Health Organisation (WHO) recommendation.
- These kits comprise two transport media, one for nasopharyngeal and the other for oropharyngeal specimen collection swabs.
- Both of these are safe to use as they are recommended and validated by the Centre for Disease Control and Prevention (CDC) as well.
- The complete package is suitable for the collection, transport, maintenance, and long-term freezer storage of viral specimens.
- The unique formulation of the transport medium helps in preserving the viability of viruses for up to 72 hours (at refrigerated temperatures).
- In addition to the sterile VTM kits, the Institute has also developed RNA isolation kits and RT-PCR kits jointly with RR Animal Healthcare Ltd.
- The isolated and purified RNA is then converted to DNA by an enzyme Reverse Transcriptase (RT), which is used to confirm the presence or absence of COVID-19.