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.