About the new flu strain

- The virus, which the researchers call **G4 EA H1N1**, can grow and multiply in the cells that line the human airways.
- Tests also showed that any immunity humans gain from exposure to seasonal flu does not protect G4.
- Current flu vaccines do not appear to protect against it, although they could be adapted to do so if needed.
- The new flu strain that has been identified in China is similar to the 2009 swine flu, but with some new changes.

19 Feluda

Context: Scientists at Delhi's CSIR-IGIB have developed a paper-based test strip for Covid-19 and named it after the fictional detective created by Satyajit Ray.

About:

- The 'Feluda' test strip has been invented at the Council of Scientific & Industrial Research's Institute of Genomics and Integrative Biology (CSIR-IGIB).
- The simple paper-based test strip could also reduce Covid-19 testing costs the real-time polymerase chain reaction test (RT-PCR) used currently requires machinery worth lakhs of rupees, but the 'Feluda' test could cost as little as Rs 500.

How does it work?

• The strip will just change color and can be used in a simple pathological lab. The most important part is it will be 100 per cent accurate.

CRISPR Technology:

- Feluda uses cutting-edge gene-editing CRISPR-CAS-9 technology to target and identifies the genomic sequence of the novel coronavirus in suspected individuals
- CRISPR technology recognizes specific genetic sequences and cuts them in a short time.
- The CRISPR reaction is specific and can be done in 5-10 minutes. It is a powerful technique that worked in detecting the Zika virus too.
- How Feluda is different from others?
- Unlike Stanford and MIT, which use CAS-12 and CAS-13 proteins to detect the presence of the novel coronavirus, Feluda uses CAS-9 protein technology. And unlike the PCR test, there is no need for probes.
