PARAM ANANTA

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In news– The government has deployed an indigenously developed Param Ananta supercomputer under National Supercomputing Mission (NSM) at IIT Gandhinagar, Gujarat. It has a computing power capacity of 838 teraflops (838 lakh crore calculations per second).

About India's supercomputers-

- Param Ananta supercomputing facility is established under Phase 2 of the NSM, wherein the majority of the components used to build this system have been manufactured and assembled within the country, along with an indigenous software stack developed by C-DAC.
- It will be able to support IIT Gandhinagar in pursuing R&D activities in multidisciplinary domains of science and technology including artificial intelligence (AI), machine learning (ML), and data science, computational fluid dynamics (CFD), bio-engineering for genome sequencing and DNA studies, computational biology and bioinformatics used in prediction and detection of gene networks.
- It can help atomic and molecular sciences to comprehend the binding of drugs to a particular protein.
- The National Supercomputing Mission (NSM) is a joint initiative of the Ministry of Electronics and Information Technology (MeitY) and the Department of Science and Technology (DST).
- Under NSM, to date 15 supercomputers have been installed across the nation with an aggregate compute capacity of 24 petaflops.
- The top supercomputer 210 AI PetaFlops **Param Siddhi** with a processing power of 6.5 petaflops has been deployed at CDAC, Pune.

Note- As of 2022, **Frontier**, a supercomputer built for the U.S. Department of Energy’s Oak Ridge National Laboratory (ORNL), became the world’s fastest supercomputer. **Fugaku,** installed at the RIKEN Center for Computational Science in Kobe, Japan, is the second fastest supercomputer. Frontier is also ranked number one as the world’s most energy-efficient supercomputer, on the Green500 list, which measures supercomputing energy use and efficiency.