Syllabus subtopic: Science and Technology- developments and their applications and effects in everyday life Achievements of Indians in science & technology; indigenization of technology and developing new technology.

Prelims and Mains focus: About the TrueNat tool and significance for WHO approval of it, the menace of TB in India

News: The World Health Organization (WHO) has given its approval to TrueNat, an indigenous molecular diagnostic tool to help detect tuberculosis (TB).

About TrueNat

- The TB test, developed by Goa-based Molbio Diagnostics, was found to be comparable in accuracy to similar tests currently in use and has been recommended as a replacement for sputum microscopy tests.

- TrueNat is a polymerase chain reaction (PCR)-based test that by assaying the genes present in the TB bacteria, can not only detect the presence of the bacteria but can also detect drug resistance with the use of chips.

- The DNA of the TB bacteria is extracted from sputum samples collected from the patient and the test can easily and cost-effectively be done in the primary health care setup.

Why is WHO's approval significant for India

- The approval by WHO is important for India because it has the most number of TB patients in the world.
- According to the National Strategy Plan for TB Elimination 2017-25:

  1. TB kills and estimated 4,80,000 Indians every year and over 1400 everyday.
2. India also has over a million ‘missing cases’ every year that are not notified and most remain either undiagnosed or unaccountably and inadequately diagnosed and treated in the private sector.