13 – 08 – 2022

News: 75 Vande Bharat Express trains to be rolled out

- Recently, Ministry of railways has announced that 75 of the Vande Bharat express trains are set to be launched and it will connect all parts of the country.

Vande Bharat Trains

- Vande Bharat Trains are indigenously designed and manufactured semi high speed, self-propelled trains that are touted as the next major leap for the Indian Railways in terms of speed and passenger convenience since the introduction of Rajdhani trains.
- The first Vande Bharat was manufactured by the Integral Coach Factory (ICF), Chennai, as part of the 'Make in India' programme, at a cost of about Rs. 100 crore.
- The Vande Bharat was India's first attempt at adaptation of the train set technology compared with conventional systems of passenger coaches hauled by separate locomotives.
- The train set configuration, though complex, is faster, easier to maintain, consumes less energy, and has greater flexibility in train operation.
- Currently, two Vande Bharat Expresses are operational —one between New Delhi and Varanasi and the other from New Delhi to Katra.

- An aluminium body will make each trainset around 40-80 tonnes lighter than a current Vande Bharat and this will mean lower consumption of energy as well as better speed potential.

Features of the Vande Bharat Trains

- These trains, dubbed as Train 18 during the development phase, operate without a locomotive and are based on a propulsion system called distributed traction power technology, by which each car of the train set is powered.
- Its coaches incorporate passenger amenities including on-board WiFi entertainment, GPS-based passenger information system, CCTVs, automatic doors in all coaches, rotating chairs and bio-vacuum type toilets like in aircraft.
- It can achieve a maximum speed of 160 kmph due to faster acceleration and deceleration, reducing journey time by 25% to 45%.
- It also has an intelligent braking system with power regeneration for better energy efficiency thereby making it cost, energy and environment efficient.