Chenab Bridge

Why in News?

Prime Minister recently inaugurated the world's highest railway bridge over the Chenab.

- It is the ***world's highest rail and arch bridge*** with a dock height of 359 meters from the river bed, 35 meters taller than Paris's iconic Eiffel Tower.
- It has been built between Bakkal and Kauri in Reasi district.
- **Designed & constructed by -** Joint venture consisting of Afcons Infrastructure, South Korea-based Ultra Construction & Engineering Company, and VSL India.
- **Geography** - It falls in ***zone-V,*** a major seismic zone with a fractured geology.
- It was proposed in one of the most complicated and isolated terrains in India.
- **Features -** It has a steel arch and concrete structure.
- Its deck is located on a transition curve (the part between straight and circular sections of roads) with a changing radius.
- **Life span -** It is designed to have a lifespan of 120 years and handle train speeds upto 100 km per hour.
- It can withstand earthquakes ***up to a magnitude of 8*** on the Richter Scale, besides high-intensity explosions equivalent to 40 tonnes of TNT.
- Its steel structure can withstand temperatures up to -20 degree C and wind speeds up to 266 km per hour.
- Even after the removal of one pier, it will remain in operation at a restricted speed of 30 km per hour.
- **Challenge** - To build the bridge without obstructing the flow of the Chenab River.

Reference

The Indian Express | Chenab Bridge