

Coortime  $\rightarrow$  EC-19

Sem-2/Msc-2/Unit-2/EC-19/Phy/VKS

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## Topic: Vibration of string -

The vibration of strings is a fundamental concept in physics and Acoustics, forming the basis for stringed instruments like guitars, violins and pianos.

When a stretched string is plucked, struck or bowed, a disturbance travels along the string, creating standing waves with constant frequency.

Fundamental of string vibration -

- ① Transverse waves - The vibrations are primarily transverse, meaning the string oscillates and perpendicular to its length.
- ② Standing waves - Because the string is fixed at both ends (e.g., at the nut and bridge of a guitar), the waves reflect back and forth creating standing waves. These waves have fixed points that do not move (nodes) and points of maximum motion called Anti-Nodes.