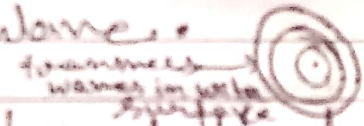
Date
09/02/2024

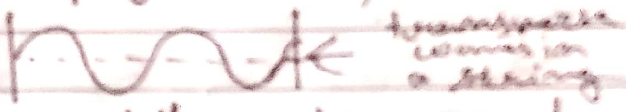
MJC-2
Unit III
SEM-III Class-2

* → Wave motion → Waves carry energy from one place to another without the particles (particles) of the medium actually travelling the entire distance.

$ → There are two type of wave motion
1) Transverse wave and
2) Longitudinal wave

⟹ Transverse wave → When the particle of medium vibrate at right angles to the direction of propagation of the wave.





⟹ Longitudinal wave → When the particles of the medium vibrates parallel to the direction of propagation of the wave the wave eg is sound waves in liquid gas and solids.

* Some characteristics of progressive wave

→ Every particles describes simple harmonic motion along the direction of propagation of wave, there being a change of phase from point to point.

→ Only the energy is carried by the advancement of the wave from in direction of propagation of the wave.

The velocity in a given medium is a constant determined by the density and elastic constant of the medium.

→ The phase difference between two vibrating particles on the line of propagation is proportional to the path between the particles.