

MIC/Sem-2/Unit-2/By Dr. VCS/

Topic: Sound wave - It is longitudinal waves produced by vibrating of an objects that travel through material medium like - solid, liquid or gases and also transporting energy.

The speed of sound waves depends on the density, and elasticity of medium. The speed of sound wave in air and water is 332 ms^{-1} , and $15 \times 10^2 \text{ ms}^{-1}$ respectively.

The sound waves can reflect (echoes) and ~~be~~ refract (bend due to change in speed of sound in different medium and also by obstacles in the path of sound).

The common example of sound are Voice/Music; ultrasound, infrasound and sound of Echolocation sound, etc; Hypersonic waves.

The factors affecting the sound are their, Amplitude, ~~to~~ density and intensity of medium, Motion of air, surface area, etc. Pitch, Quality of tubes, ~~etc~~ medium, temperature, etc.

The properties of sound are - Frequency, Amplitude, wave length, speed, etc.

The behaviours of sound waves are like - Reflection, Refraction, Diffraction, Resonance etc.