Class-VII(CANCEPT MAP)

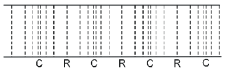
sound

Sound is a form of energy which is produced by a vibrating body. It travels in the form of waves

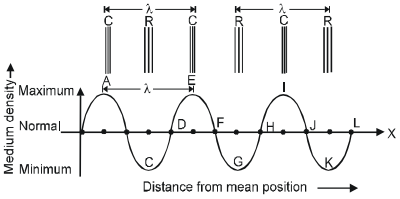
Propagation of sound : Sound transmitted in the form ofmechanical Waves.Thus sound needs amedium to travel

Properties of sound waves

- Compression(C): region of maximum density
- Rarefaction(R): region of minimum density.
- Wave length(λ) It is the distance between two consecutive compressions or rarefractions.



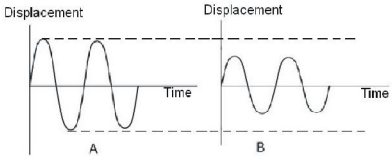
- Amplitude (a) The maximum displacement of vibrating body is known as amplitude



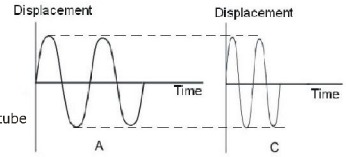
- Frequency (u) The number of oscillations produced per second. It is measured in hertz (Hz). The speed of sound wave is given by speed =frequency × wavelength.
- Time period Time taken to complete one vibration
- Wave velocity: Distance travelled in unit time

Characteristics of sound

- Loudness
- Pitch
- Quality of sound Timber

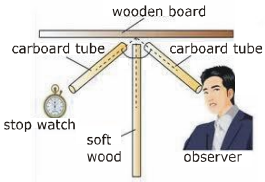


Graph B shows the smaller wave than A, so we will sense lower volume of sound in B.

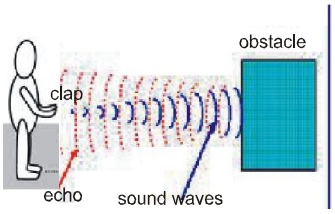


The frequency of graph C is twice as much as graph A. which means C is higher pitch than A.

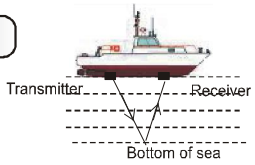
Reflection of sound



Echo



Sonar



Classification of sound

- Audiblerange (20 Hz to 20000Hz)
- Infrasonic (below 20Hz)
- Ultrasonic (above 20000Hz)