



Solution of Questions For Short Answer

Chapter 16 : Sound Waves

Ans. 1.

We cannot hear sound of stone cracking behind us because there is no air or any other material to propagate sound waves.

But we can hear our foot sep as sound of foot wil travel through our body and we will be able to hear it.

Ans. 2.

We can hear our own words if we are in vacuum as sound wave would travel through our body.

But we cannot hear friend's voice as it does not has any material to propagate.

Ans. 3.

If hit is made vertically the wave is longitudinal.

If hit is made horizontal the wave is transverse.

Ans. 4.

The sound waves of both speakers would collide with each other and the sound waves of the speaker facing towards man would be damaged up to some extent.

Ans. 5.

As helium is light gas it is very less dense so sound wave propagates faster in helium gas.

Thus frequency of the speech is high thus making high pitch voice.

Ans. 7.

if both forks have same amplitude then the fork having high frequency will produce more intense sound in air.

Ans. 8.

In both cases if observer approaches source or source approaches observer the apparent frequency is physiological phenomenon as the frequency of the sound is still the same but due to motion w.r.t. each other the apparent frequency changes.