

2. SOUND (IX)

1. Why sound waves are called mechanical waves?
2. Does sound travel on the moon? Why or why not?
3. Differentiate between longitudinal waves and transversal waves?
4. Define relationship between frequency and time period?
5. Differentiate between pitch and loudness of a sound? Name the characteristic of sound they are depending upon?
6. Differentiate between timber and intensity of a sound?
7. How are the wavelength and frequency of sound wave related to its speed?
8. A sound wave has a frequency of 2 KHz and wave length 35cm. How long will it take to travel 1.5 km?
9. What is sonic boom? In which medium air, water or iron does sound travel the fastest? How does temperature affect speed of sound?
10. Differentiate between echo and reverberation?
11. For hearing distinct echoes, the minimum distance of the obstacle from the source of sound must be 17.2 m. Why give reason?
12. What is the audible range of the human ear?
13. How does a ultrasound ray detect flaw inside a metal block?
14. A submarine emits a sonar waves which returns from an underwater cliff in 1.02s. If the speed of sound in salt water is 1531m/s. How far away is the cliff?
15. A sound wave travels at speed of 339m/s. Wavelength 1.5m. What is the frequency of the wave? Will it be audible?