

Class 9 Science Sound Practice Questions Assignment

1. Explain the application of SONAR.
2. Define longitudinal waves with examples.
3. With the help of an activity, prove that sound needs a medium to travel.
4. How does a human ear function? Explain with the help of a well-labeled diagram.
5. Two strings of wire are taken to produce notes of the same pitch and loudness. However, their quality differs to a great extent. What is the reason behind it?
6. What is a wave and how many types of waves are there? Explain with examples.
7. How can frequency and amplitude affect a musical sound?
8. What is an echo and how is it produced?
9. What is ultrasound? How is it used?
10. What is the difference between the loudness and intensity of the sound?
11. Why are the ceilings of concert halls round?
12. Define wavelength and its symbol.
13. A source is producing 1500 sound waves in 3 seconds. If the distance covered by compression and an adjacent rarefaction be 68 cm, find (a) frequency (b) wavelength, and (c) velocity of the sound wave.
14. What are the different characteristics of sound?
15. What is resonance?
16. What is the range of frequencies associated with (a) Infrasound? (b) Ultrasound?
17. Cite an experiment to show that sound needs a material medium for its propagation.
18. Flash and thunder are produced simultaneously. But thunder is heard a few seconds after the flash is seen, why?

19. A person has a hearing range from 20 Hz to 20 kHz. What are the typical wavelengths of sound waves in air corresponding to these two frequencies? Take the speed of sound in air as 344 ms^{-1} .
20. Two children are at opposite ends of an aluminium rod. One strikes the end of the rod with a stone. Find the ratio of times taken by the sound wave in the air and in aluminium to reach the second child.