

Class 9th Sound

1. Sound waves are

- a) Transverse waves
- b) Longitudinal waves
- c) Electromagnetic waves
- d) None of the above

2. The speed of sound is maximum in

- a) Air
- b) Water
- c) Vacuum
- d) Steel

3. The unit of frequency is

- a) Decibel (dB)
- b) Newton (N)
- c) Hertz (Hz)
- d) Joule (J)

4. Which of the following is not a characteristic of a sound wave?

- a) Wavelength
- b) Frequency
- c) Amplitude
- d) Temperature

5. SONAR is used to

- a) Measure the depth of the sea
- b) Detect underwater objects
- c) Find the direction of sound
- d) Both (a) and (b)

6. The phenomenon of multiple reflections of sound that causes persistence of sound is called

- a) Echo
- b) Reverberation

- c) Refraction
- d) Dispersion

7. What is the audible range of sound for a human ear?

- a) 20 Hz to 20 kHz
- b) 0 Hz to 10 kHz
- c) 10 Hz to 100 kHz
- d) 50 Hz to 5 kHz

8. The time taken by a sound wave to travel 660 m in air at a speed of 330 m/s is

- a) 1 second
- b) 2 seconds
- c) 3 seconds
- d) 4 seconds

9. The loudness of sound depends on

- a) Frequency
- b) Amplitude
- c) Wavelength
- d) Speed

10. Which of the following is an application of the reflection of sound?

- a) Megaphone
- b) Stethoscope
- c) SONAR
- d) All of the above

11. Differentiate between loudness and intensity of sound.

12. How does the human ear detect sound?

13. What are wavelength, frequency, time period and amplitude of a sound wave ?

14. Calculate the wavelength of a sound wave whose frequency is 220 Hz and speed is 440 m s^{-1} in a given medium.

15. What is the range of frequencies associated with (a) Infra sound ? (b) Ultrasound ?