

# sound

1. Explain the following terms

a) amplitude b) wavelength c) frequency (AS1)

2. Write the relation between wavelength, frequency and speed of sound (AS1)

3. Which has larger frequency – infrasonic sound or ultrasonic sound? (AS2)

4. What do you understand by a sound wave? (AS1)

5. Why is soft furnishing avoided in concert halls? (AS7)

6. Define the wavelength of a sound wave. How is it related to the frequency and the wave speed? (AS1)

7. Does the sound follow same laws of reflection as light does? (AS1)

8. Two sources A and B vibrate with the same amplitude. They produce sounds of frequencies 1kHz and 30kHz respectively. Which of the two waves will have larger power? (AS1)

9. You might have observed that sometimes your pet dog starts barking though no one is seen near in its surroundings or no disturbance heard nearby. Does this observation raise any doubts in your mind about the peculiar behavior of dog after your understanding about 'range of hearing the sound'. If yes, write them. (AS2)

10. With the help of a diagram describe how compression and rarefaction pulses are produced in air near a source of sound. (AS5)

11. How are multiple reflections of sound helpful to doctors and engineers? (AS7)

12. Explain the working and applications of SONAR. (AS1)

13. How do you appreciate efforts of a musician to produce melodious sound using musical instrument by simultaneously controlling frequency and amplitude of the sounds produced by it. (AS6)

14. How do echoes in a normal room affect the quality of the sounds that we hear? (AS7)

1. When can you say that the sound is propagating through a medium [ ]  
a) If the medium is travelling b) The particles of a medium are travelling  
c) When the source of sound is travelling d) When the disturbance is travelling.

2. The unit for the number of waves produced in a second are [ ]  
a) hertz b) joule c) meter d) pascal

3. The sounds of frequency less than 20 Hz are known as [ ]  
a) Ultra sounds b) Soft sounds c) Louder sounds d) Infrasonics

4. The sound limit between the frequency of 20Hz – 20000Hz is called as [ ]  
a) Audible range b) Ultra sound range c) Low sound range d) Sonic boom

Multiple choice questions

5. The characteristic feature of sound which conveys the sensation of sound to our brain is [ ]  
a) Pitch b) Loudness c) Quality d) amplitude