

## **Exercise MCQs**

Sr. No.	Questions	A	B	C	D
1	Which is an example of a longitudinal wave?	✓ sound wave	light wave	radio wave	water wave
2	How does sound travel from its source to your ear?	✓ by changes in air pressure	by vibrations in wires or strings	by electromagnetic wave	by infrared waves
3	Which form of energy is sound?	Electrical	✓ mechanical	thermal	Chemical
4	Astronauts in space need to communicate with each other by radio links because	sound waves travel very slowly in space	sound waves travel very fast in space	✓ sound waves cannot travel in space	sound waves have low frequency in space
5	The loudness of a sound is most closely related to its <b>OR</b> The loudness of a sound mostly depend upon	Frequency	Period	wavelength	✓ Amplitude
6	For a normal person, audible frequency range for sound wave lies between	10 Hz and 10 kHz	✓ 20 Hz and 20 kHz	25 Hz and 25 kHz	30 Hz and 30 kHz
7	When the frequency of a sound wave is increased, which of the following will decrease? i. wavelength ii. period iii. Amplitude	i only	iii only	✓ i and ii only	i and iii only

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## **Additional MCQs**

Sr. No.	Questions	A	B	C	D
1	SI unit of intensity	$\text{Wm}^{-1}$	$\checkmark \text{Wm}^{-2}$	$\text{Wm}$	$\text{Wm}^2$
2	Speed of sound at room temperature is	$320 \text{ ms}^{-1}$	$330 \text{ ms}^{-1}$	$\checkmark 340 \text{ ms}^{-1}$	$350 \text{ ms}^{-1}$
3	The sensation of sound persist in our mind is	0.01 s	$\checkmark 0.1 \text{ s}$	0.02 s	0.2 s
4	One Bel is equal to	40 dB	20 dB	90 dB	$\checkmark 10 \text{ dB}$
5	The intensity level of rusting of leaves is	$\checkmark 10 \text{ dB}$	20 dB	30 dB	40 dB
6	The sound level of whisper is	10 dB	$\checkmark 30 \text{ dB}$	40 dB	90 dB
7	The intensity level of fast train siren	150 dB	$\checkmark 130 \text{ dB}$	100 dB	120 dB
8	In general, the speed of sound is greater in	Gases	Liquids	$\checkmark \text{Solids}$	None of these
9	The consecutive waves compression and rarefactions is called	Frequency	Time period	Focal length	$\checkmark \text{Wavelength}$
10	If speed of sound wave is $340 \text{ ms}^{-1}$ and wavelength 0.5 m, then calculate frequency	340 Hz	0.5 Hz	$\checkmark 680 \text{ Hz}$	170 Hz
11	Speed of sound in distilled water at $25^\circ\text{C}$ is	$7478 \text{ ms}^{-1}$	$7489 \text{ ms}^{-1}$	$\checkmark 1498 \text{ ms}^{-1}$	$1508 \text{ ms}^{-1}$
13	The speed of sound in air at $25^\circ\text{C}$	$\checkmark 1246 \text{ kmh}^{-1}$ OR $346 \text{ ms}^{-1}$	$1264 \text{ kmh}^{-1}$	$1346 \text{ kmh}^{-1}$	$1364 \text{ kmh}^{-1}$
14	The speed of sound in air at $0^\circ\text{C}$	$317 \text{ ms}^{-1}$	$386 \text{ ms}^{-1}$	$346 \text{ ms}^{-1}$	$\checkmark 331 \text{ ms}^{-1}$
15	The speed of sound in wood at $25^\circ\text{C}$	$5950 \text{ ms}^{-1}$	$5960 \text{ ms}^{-1}$	$3980 \text{ ms}^{-1}$	$\checkmark 2000 \text{ ms}^{-1}$
16	The speed of sound in liquid is _____ than that of gas	3 times	4 times	$\checkmark 5 \text{ times}$	15 times
17	The speed of sound in solid is _____ greater than that of gases	3 times	4 times	5 times	$\checkmark 15 \text{ times}$
18	The intensity level of siren is	150 dB	130 dB	100 dB	$\checkmark 120 \text{ dB}$