

MULTIPLE CHOICE QUESTIONS

1. A list of mediums is given below.

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| (i) wood | (iii) air |
| (ii) water | (iv) vacuum |

In which of these mediums can sound travel?

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| (a) i & ii only | (c) iii & iv only |
| (b) i, ii & iii only | (d) ii, iii & iv only |
2. The loudness of sound depends on:
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|--------------------|----------------------|
| (a) its amplitude. | (c) its time period. |
| (b) its frequency. | (d) its speed. |
3. Which of the following statements are correct?
- (i) Sound is produced by vibrations.
 - (ii) Sound requires a medium for propagation.
 - (iii) Light and sound both require a medium for propagation.
 - (iv) Sound travels slower than light.
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|----------------------|-----------------------|
| (a) i & ii only | (c) ii, iii & iv only |
| (b) i, ii & iii only | (d) i, ii & iv only |
4. An object is vibrating at 50 hertz. What is its time period?
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| (a) 0.02 s | (c) 0.2 s |
| (b) 2 s | (d) 20.0 s |
5. In order to reduce the loudness of a sound we have to
- (a) decrease its frequency of vibration of the sound.
 - (b) increase its frequency of vibration of the sound.
 - (c) decrease its amplitude of vibration of the sound.
 - (d) increase its amplitude of vibration of the sound.
6. Loudness of sound is measured in units of
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| (a) decibel (dB) | (c) metre (m) |
| (b) hertz (Hz) | (d) metre/second (m/s) |

7. The loudness of sound is determined by the
- (a) amplitude of vibration
 - (b) ratio of amplitude and frequency of vibration
 - (c) frequency of vibration
 - (d) product of amplitude and frequency of vibration
8. 1 hertz is equal to
- (a) 1 vibration per minute
 - (b) 10 vibrations per minute
 - (c) 60 vibrations per minute
 - (d) 600 vibrations per minute
9. Pitch of sound is determined by its
- (a) frequency
 - (b) amplitude
 - (c) speed
 - (d) loudness
10. Ultrasound has frequency of vibration
- (a) between 20 and 20,000 Hz
 - (b) below 20 Hz
 - (c) above 20,000 Hz
 - (d) between 500 and 10,000 Hz

VERY SHORT ANSWER QUESTIONS

11. Lightning can be seen the moment it occurs. Paheli observes lightning in her area. She hears the sound 5 s after she observed lightning. How far is she from the place where lightning occurs? (speed of sound = 330 m/s).
12. Does any part of our body vibrate when we speak? Name the part.
13. Boojho saw a cracker burst at night at a distance from his house. He heard the sound of the cracker a little later after seeing the cracker burst. Give reason for the delay in hearing the sound.
14. When we hear a sound, does any part of our body vibrate? Name the part.
15. Name two musical instruments which produce sound by vibrating strings?