

Chapter 7: Sound

Worksheet 1

1. Write T for true and F for false statement.

- (i) Sound is a form of energy which causes sensation of hearing in our ears.
- (ii) The SI unit of time period is second(s).
- (iii) A sound of low pitch is hoarse.
- (iv) A sound of a single frequency is monotone.
- (v) Veena is an example of wind instrument.

2. Fill in the blanks.

- (i) The sound of a buzzing bee has _____ pitch.
- (ii) Only a _____ can produce a monotone.
- (iii) A sound produced by a musical instrument is called a _____ sound.
- (iv) A sound of high pitch is called _____ sound.
- (v) For sound, the unit of amplitude is same as the unit of _____.

3. Answer these questions.

- (i) What is called the distance between two consecutive compressions or two consecutive rarefactions?
- (ii) What is the speed of sound in air at 15°C?
- (iii) What happens to the frequency of a sound when its pitch goes on increasing?
- (iv) Establish the relationship between wave speed, frequency and wavelength.
- (v) Name two wind instruments.

4. Solve the numerical problems.

- (i) If frequency of a sound is 400 Hz, find the time period of vibration of a medium particle.
- (ii) Frequency of a tuning fork is 528 Hz. If the speed of sound in air is 344 m/s, then calculate the wavelength of the sound wave.

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Worksheet 2

1. Fill in the blanks.

- (i) Sound needs a medium for its _____.
- (ii) The SI unit of frequency is _____.
- (iii) Frequency of a wave is _____ of its time period.
- (iv) Pitch of a sound depends on its _____ of vibration.
- (v) Guitar is an example of _____ instrument.

2. Match the columns.

Column A

- (i) String instrument
- (ii) Wind instrument
- (iii) Membrane instrument
- (iv) The unit of loudness of sound
- (v) The SI unit of wave speed

Column B

- (a) Bongo
- (b) m/s
- (c) decibel
- (d) Clarinet
- (e) Veena

3. Define the following.

- (i) Wave speed
- (ii) Pitch
- (iii) Loudness
- (iv) Amplitude
- (v) Time period

4. Answer these questions.

- (i) How is sound produced in humans?
- (ii) Which has higher pitch, a grown-up man or a child?
- (iii) Are sound waves called longitudinal waves?
- (iv) Why the sound produced is very weak when you whisper?
- (v) Name two membrane instruments.