

CLASS – IX
PHYSICS
REVISION WORKSHEET

1. Which of the following is transmitted by a wave?
(a) amplitude (b) mass
(c) energy (d) matter
2. Range of audible sound waves is from:
(a) 20 Hz to 20000Hz (b) 100 Hz to 10000Hz
(c) 10 Hz to 20 Hz (d) none of these
3. Which of the following is a mechanical wave?
(a) light wave (b) sound wave
(c) radio wave (d) X-rays
4. The SI unit of frequency is:
(a) second (b) hertz
(c) decibel (d) watt/metre²
5. Sound waves in air are:
(a) longitudinal waves (b) transverse waves
(c) both transverse and longitudinal
6. Sound waves can travel:
(a) only in solids (b) only in liquids
(c) in liquids and gases only (d) in solids, liquids and gases
7. Which of the following is not a character of musical sound?
(a) pitch (b) loudness (c) wavelength (d) quality
8. The time period of a vibrating object is 0.005 s. the frequency of waves emitted by it is:
(a) 5×10^{-3} Hz (b) 5 Hz (c) 200 Hz (d) 2000 Hz
9. To hear a clear echo the reflecting surface must be at a minimum distance of :
(a) 34m (b) 17m (c) 170m (d) 340 m
10. A SONAR sends a pulse of frequency 500Hz towards the bottom of a lake. The echo is received after 0.4s. The speed of waves in water is 1450ms^{-1} . The depth of the lake is:
(a) 200m (b) 1000m (c) 290m (d) 580m
11. Distinguish between:

- (i) loudness and intensity
 - (ii) Longitudinal and Transverse Waves
 - (iii) Echo and Reverberation
- 12.** Draw a graphical diagram for the wave shape for:
- (i) low pitch sound
 - (ii) high pitch sound
 - (iii) soft sound
 - (iv) loud sound
- 13.** What arrangements should be made in an auditorium to control excessive reverberation?
- 14.** Why are ceilings of concert hall made curved? Explain by giving the diagram.
- 15.** Write four applications of ultrasound.