

Sound and Wave

1. Which part of human ear converts sound vibrations into electrical signals
 - a) Hammer
 - b) Stirrup
 - c) Tympanic membrane
 - d) Cochlea
2. What do dolphins, bats and porpoise use
 - a) Ultrasound
 - b) Infrasound
 - c) Both a and b
 - d) None of them
3. Children under the age of 5 can hear upto
 - a) 25 Hz
 - b) 25k Hz
 - c) 20 Hz
 - d) 25 kHz
4. Reverberation of sound is used in
 - a) Stethoscope
 - b) Trumpets
 - c) Megaphone
 - d) All of these
5. To hear a distinct echo each time interval between the original sound and the reflected sound must be:
 - a) 0.2 s
 - b) 1s
 - c) 2s
 - d) 0.1 s
6. Speed (v) abs wavelength (λ) and the frequency (ν) of sound are related as
 - a) $\lambda = v \times \nu$
 - b) $v = \lambda \times \nu$
 - c) $v = \lambda \times \nu$
 - d) $v = \lambda / \nu$
7. Speed of sound depends upon
 - a) Temperature of the medium
 - b) Pressure of the medium
 - c) Temperature of source producing sound
 - d) Temperature and pressure of medium

8. Which characteristic is this? We can distinguish between sound having same pitch and loudness.

- a) Tone
- b) Note
- c) Pitch
- d) Timber

9. Loud sound can travel a larger distance, due to

- a) Higher amplitude
- b) Higher energy
- c) High frequency
- d) High speed

10. A wave in slinky travelled two and fro in 5 sec the length of the slinky is 5m. What is the velocity of wave?

- a) 10m.s
- b) 5m/s
- c) 2m/s
- d) 25m/s

11. A man standing in between two parallel cliffs, he produces a sound and first echo is heard from cliff-2 after 2 seconds and second echo is heard from cliff-1 after 3 seconds. If the speed of sound in air 340 m/s. Find the distance between two cliffs.

- a) 425 m
- b) 170 m
- c) 850 m
- d) 340 m

12. For a sound wave, frequency is 8800 Hz and speed is 352 m/s in a given medium. The wavelength of the wave is:

- a) 0.4 m
- b) 0.03 m
- c) 0.25 m
- d) 0.04 m

13. In medium, the nature of sound waves is

- a) only transverse
- b) both longitudinal and transverse
- c) neither longitudinal nor transverse
- d) only longitudinal

14. Which of the following term is responsible for the distance between two successive compressions of a Sound Wave?

- a) Wave Number
- b) Frequency
- c) Amplitude

d) Wave Length

15. The pitch of the sound is related to:

- a) Frequency
- b) Intensity
- c) Amplitude
- d) Loudness

16. What kind of sound waves does the earthquake produce before the main shocks?

- a) Ultrasonics Sound Waves
- b) Natural Sound Waves
- c) Infra Sonics Sound Waves
- d) None of the above

17. Audible range for adult human beings is:

- a) Less than 20 Hz
- b) 20 to 20,000 Hz
- c) 21,000 to 50,000 Hz
- d) 100 to 120 kHz

18. In which medium the speed of sound will be maximum?

- a) Water
- b) Copper
- c) Steel
- d) Aluminium

19. In music, the term 'note' is generally used to represent

- a) The relative duration and pitch of a sound.
- b) The loudness and softness of a sound.
- c) The interval frequency between two sounds.
- d) A style or school of music.

20. Loudness of sound varies directly with vibrating body's ____.

- a) Amplitude
- b) Pitch
- c) Frequency
- d) None of these

21. Which of the following term defined SONAR?

- a) Sound Nautical Ranging
- b) Sound Navigation and Ranging
- c) Super Nautical Range
- d) Sound Navigate Ray

Answers Key

1. D 2. A 3. B 4. D 5. D 6. C 7. A 8. D 9. B 10. C

11. C 12. D 13. D 14. D 15. A 16. C 17. B 18. D 19. A 20. A

21. B