

Date: Feb 24, 2025
Subject: PHYSICS

TENDERHEART HIGH SCHOOL, SEC-33B, CHD.

CLASS-VIII

Ch-Sound (Revision)

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1. Q Define the following terms : — (a) Sound (b) Frequency (c) Wavelength
(d) Ultrasound (e) Time period.

2 Q: → Sound in air propagates in the form of _____ wave.

3 Q: — Bats can produce and hear _____ sound.

4 Q: — _____ can hear the highest frequency range of sound.

5 Q: → The speed of light in air is _____.

6 Q: → The S.I unit of wavelength is _____.

7 Q: → The position of maximum upward displacement of medium particles in a transverse wave is known as: — _____.

8 Q: → The speed of sound in air is 330 m/s and in water is 1650 m/s .
It takes 2 sec for sound to reach a certain distance from the source placed in air (a) find the distance
(b) In what time, the sound will cover the same distance when the source is in water?

Ans (a) $V = 330 \text{ m/s}$, $t = 2 \text{ sec}$.

$$d = V \times t = 330 \times 2 = 660 \text{ m}$$

(b) time = ? ; $d = 660 \text{ m}$, Velocity of sound in water is 1650 m/s

$$V = \frac{d}{t} \\ \text{So } t = \frac{d}{V} \Rightarrow \frac{660}{1650} = \frac{66 \cancel{0} \cancel{0} \cancel{0}}{165 \cancel{5} \cancel{5} \cancel{5}} = \frac{2}{5} = 0.4 \text{ sec.}$$

Q9: - SONAR makes use of _____

Q10: → Explain how the density of a gas affects the speed of sound? (2)

Q11: → Give two differences between ultrasonic and supersonic sound (2)

Q12: → Complete the following: - Wave Velocity $\Rightarrow$ _____ $\times$ Wavelength.

Q13: → Longitudinal waves can produce in which medium?

Ans They can be produced in solids, liquids and gases.

Q14: → For which range of frequencies are the human ears most sensitive?

_____ α _____ α _____ α _____ α _____ α _____

Ch-9 (Current Electricity)

Q1: → In metals, current flows due to the movement of which particles?

Ans Electrons

Q2: → Name one d.c source Ans a cell.

Q3: → What is the value of charge on an electron?

Ans: → 1.6×10^{-19} Coulomb.

Q4: → Name the instrument used to control the current in the an electric circuit.

Ans: - Rheostat, because with the help of rheostat we can change resistance and hence current.

Q5: - Why a thicker wire offers less resistance?

Ans: - because greater the area of cross-section of a wire lesser will be the resistance ($\because R \propto \frac{1}{A}$)

Q6: → On increasing the temperature the resistance of wire decreases or increases?

Ans Increases

← to be continued →