

Chapter No. 8

- Beats can be heard when difference of frequency is not more than
 - 4 hertz
 - 6 hertz
 - 8 hertz
 - 10 hertz
- The distance between two consecutive nodes is
 - $\lambda/4$
 - $\lambda/2$
 - λ
 - 2λ
- The speed of sound does not depend upon
 - density
 - pressure
 - humidity
 - temperature
- Sound travel faster in
 - H_2
 - O_2
 - CO_2
 - He
- The distance covered by one wave in one second is called
 - wave number
 - wavelength
 - wave speed
 - frequency
- Half wavelength corresponds to
 - 0°
 - 90°
 - 180°
 - 360°
- the distance between two consecutive antinodes is
 - $\lambda/4$
 - $\lambda/2$
 - λ
 - 2λ
- The speed of sound in air depends upon:
 - Temperature
 - Humidity
 - Density
 - All of these
- Beats are used to find:
 - Frequency
 - Wavelength
 - Intensity
 - Speed
- The pressure exerted by a column of mercury 76 cm high and at $0^\circ C$ is called:
 - 1 atmp
 - 1 Nm^{-2}
 - 1 Pascal
 - None of these
- Distance between two consecutive nodes is:
 - λ
 - $\frac{\lambda}{4}$
 - $\frac{\lambda}{2}$
 - 2λ
- Which one of the following media can transmit both transverse and longitudinal waves?
 - Solid
 - Liquid
 - Gas
 - Plasma
- The wavelength of the fundamental mode of vibration of a closed pipe of length 'L' is:
 - $\frac{L}{2}$
 - L
 - 2L
 - 4L
- The speed of sound has maximum value in:
 - Oxygen
 - Air
 - Hydrogen
 - Helium
- 10 waves pass through the medium in one second with speed of 10 m/s. The wavelength of waves is:
 - 1 m
 - 10 m
 - 20 m
 - 100 m
- Radar system is an application of:
 - Interference
 - Beats
 - Stationary waves
 - Doppler Effect
- When a string vibrates in n loops with a frequency f_n then wavelength is:

$$(A) \frac{2}{n}l$$

$$(B) \frac{n}{2}l$$

$$(C) nl$$

$$(D) 2nl$$

19. One degree Celsius rise in temperature of the air increases speed of sound by:
(A) 0.61 m/sec (B) 6.1 m/sec (C) 61 m/sec (D) 6.1 cm/sec
20. If 20 waves pass through a medium in 1 sec, with a speed of 20 ms^{-1} then the wavelength is:
(A) 20 m (B) 40 m (C) 400 m (D) 1 m
21. A stationary wave consist of
(A) crest and trough (B) nodes and antinodes
(C) Reflection and refraction (D) compression and refraction
22. One degree Celsius rise in temperature of the air increases speed of sound by:
(A) 0.61 m/sec (B) 6.1 m/sec (C) 61 m/sec (D) 6.1 cm/sec
23. If 20 waves pass through a medium in 1 sec, with a speed of 20 ms^{-1} then the wavelength is:
(A) 20 m (B) 40 m (C) 400 m (D) 1 m
24. A set of frequencies which are multiple of fundamental frequency are called
(A) Doppler's effect (B) Nodal frequencies (C) beat frequencies (D) harmonics
25. The pitch of sound depends upon
(A) intensity of sound (B) frequency of sound (C) loudness of sound (D) wavelength of sound
26. If a string fixed at both ends vibrates in n loops, then wavelength interms of l of the string is
(A) $\frac{2}{n}l$ (B) $\frac{n}{2}l$ (C) $\ell/2n$ (D) $2\ell/v$
27. In order to produce beat, the two sound waves should have
(A) same amplitude (B) slightly different amplitude
(C) same frequency (D) slightly different frequencies
28. When wave is reflected from boundary of denser medium, then phase of wave is changed by
a. 0° b. 90° c. 180° d. 270°