



Name of Student	Class	Subject	Board	Chapter
	10 th	Physics	FB	02
Date : _____	Objective			Teacher Remarks
Section - A				

Q. No.1:- Circle the correct option. Each part carries one mark.

01	Which is an example of a longitudinal wave:						
a	Sound wave	b	Light wave	c	Radio wave	d	Water wave
02	How does sound travel from its source to your ear?						
a	By changes in air pressure	b	By vibrations in wires or strings	c	By electromagnetic wave	d	By infrared waves
03	Which form of energy is sound?						
a	Electrical	b	Mechanical	c	Thermal	d	Chemical
04	Astronauts in space need to communicate with each other by radio links because:						
a	Sound waves travel very slowly in space	b	Sound waves travel very fast in space	c	Sound waves cannot travel in space	d	Sound waves have low frequency in space
05	The loudness of a sound is most closely related to its:						
a	Frequency	b	Period	c	Wavelength	d	Amplitude
06	For a normal person, audible frequency range for sound wave lie between:						
a	10 Hz and 10 kHz	b	20 Hz and 20 kHz	c	25 Hz and 25 kHz	d	30 Hz and 30 kHz
07	When the frequency of a sound wave is increased, which of the following will decrease? i. Wavelength ii. Period iii. Amplitude						
a	i only	b	iii only	c	i and ii only	d	i and iii only
08	Speed of sound in iron at 25°C is?						
a	5950ms ⁻¹	b	4700 ms ⁻¹	c	3980 ms ⁻¹	d	1531 ms ⁻¹
09	The intensity of the rustle of leaves is:						
a	0 dB	b	10 dB	c	100 dB	d	20 dB
10	Speed of sound is solid in comparison to gases is:						
a	Five times	b	Fifteen times	c	Two times	d	Eight times
11	At 1 atm pressure and 21°C (room temperature) the speed of sound in air is:						
a	343 ms ⁻¹	b	340ms ⁻¹	c	341 ms ⁻¹	d	345 ms ⁻¹
12	Which is incorrect about noise?						
a	Regular vibrations of sound	b	Jarring and unpleasant effects	c	Sudden vibrations produced	d	None of these



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Section – B

Q. No.2:- Attempt any eleven parts from the following. The answer of each part should not exceed 3 to 4 lines.

- Define sound, How sounds are produced
- Do sound require medium for its production
- Define pitch of sound, ON what factor it depends on?
- What is quality of the sound?
- Define intensity of sound?
- Calculate the frequency of sound wave of speed 340 ms^{-1} and wavelength 0.5 m?
- What is noise pollution?
- What do you know about acoustic protection?
- Define infrasonic?
- What is decibel scale?
- Why the voice of women is shriller than that of men?
- What do you know about zero bel?
- What do you know about characteristics of sound?
- What is resonance?
- Bats and mice can hear frequencies up to?

Q. No.4:- Attempt any TWO questions. All questions carry equal marks:

(2×10=20)

Q. No.1:- (a). What do you understand by the longitudinal wave? Describe the longitudinal nature of sound waves.

(b).If at Anarkali bazar Lahore, the sound level is 80 dB, what will be the intensity level of sound there?

Q. No2:- (a).What is the difference between the loudness and intensity of sound? Derive the relationship between the two.



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(b).The highest frequency sound humans can hear is about 20,000 Hz. What is the wavelength of sound in air at this frequency at a temperature of 20°C? What is the wavelength of the lowest sounds we can hear of about 20 Hz? Assume the speed of sound in air at 20°C is 343ms^{-1} .

Q. No.3:- (a).What is difference between frequency and pitch? Describe their relationship graphically.

(b). A sound wave has a frequency of 2 kHz and wavelength 35 cm. how long will it take to travel 1.5 km?