

Adabistan-e-Soophia

Code: 2070

Test No.: 1

Paper: Physics

Name: _____

Class: X Sec: _____

Syllabus: Ch. 10, 11

Question Numbers	1	2	3			Total	Grade	%age
Maximum Marks	09	22	09			40		
Marks Obtained								

Remarks: _____

A	B	C	D	Write Correct option	A	B	C	D	Write Correct option	A	B	C	D	Write Correct option			
1	A	B	C	D		7	A	B	C	D		13	A	B	C	D	
2	A	B	C	D		8	A	B	C	D		14	A	B	C	D	
3	A	B	C	D		9	A	B	C	D		15	A	B	C	D	
4	A	B	C	D		10	A	B	C	D		16	A	B	C	D	
5	A	B	C	D		11	A	B	C	D		17	A	B	C	D	
6	A	B	C	D		12	A	B	C	D		18	A	B	C	D	

Note: Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink. Cutting or filling two or more times result in zero mark in that question.

Q.1	Questions	(A)	(B)	(C)	(D)
1.	Waves transfer:	Energy	Frequency	Wavelength	Velocity
2.	The unit of frequency is:	<i>N</i>	<i>m</i>	<i>Pa</i>	<i>Hz</i>
3.	If mass of body is increased by the factor 2, then period of pendulum:	Increased by factor 2	Remains same	Decreased by factor 2	Decreased by factor 4
4.	Frequency is equal to:	$f = \frac{1}{g}$	$f = \frac{1}{T}$	$f = kx$	$f = 2z \sqrt{\frac{l}{g}}$
5.	The unit of intensity of sound is:	Wm^{-1}	Wm^{-2}	Wm^{-3}	Wm
6.	Which form of energy is sound?	Electrical	Mechanical	Thermal	Chemical
7.	The main categories of waves are:	1	2	3	4
8.	The distance between two consecutive crests is:	Frequency	Time period	Wavelength	Amplitude
9.	Which of the following characteristics of wave is independent of others?	Speed	Frequency	Amplitude	Wavelength

10.	Frequency of wave is 4Hz and wavelength is 0.4 m then its speed will be:	$16ms^{-1}$	$1.6 ms^{-1}$	16 m	1.6 m
11.	The unit of spring constant is:	<i>m</i>	<i>Kg</i>	Nm^2	Nm^{-1}
12.	The time period of body attached to spring depends on:	Mass	Force	Length	Amplitude
13.	The value of acceleration in simple harmonic motion at mean position is:	Maximum	Zero	10 N	Both (A) & (B)
14.	Sound waves are example of:	Longitudinal waves	Transverse waves	Electro-magnetic wave	x-rays
15.	The product of frequency and time period is:	<i>V</i>	1	0	λ
16.	The disturbance travelling in a medium is called:	Wave motion	S.H.M	Motion	Both (A) & (B)
17.	The part of wave at which particles of medium are below the normal position are:	Extreme position	Crest	Trough	Compression
18.	Old people cannot hear sound above than:	1000 Hz	15000 Hz	20000 Hz	10000 Hz

(Section - I)

2. Write short answers to the following questions.

(11×2=22)

- i. What is meant by spring constant?
- ii. Write the difference between longitudinal and transverse waves.
- iii. Prove that $v = f\lambda$
- iv. Write two features of simple harmonic motion.
- v. Define simple pendulum. Write down its time period equation.
- vi. In which sound move faster in solid or liquid? Why?
- vii. Define “Bel”.
- viii. What is meant by sound level?
- ix. A doctor counts 72 heartbeats in 1 minute. Calculate the frequency and period of the heartbeat.
- x. What is speed of sound in air at 25°C?
- xi. What is meant by audible frequency range?

(Section - II)

Note: Give detailed answers of the following questions.

(4+5=09)

3. a) Define loudness of sound. Upon which factors does it depends? (4)
- b) A simple pendulum completes one vibration in two second. Calculate its length. (5)