

**" VIJAYASREE" - PALAKKAD**  
First Mid Term Assessment - August 2018

Std X

**PHYSICS**

Time 1 hr/ Score 20

Write any two questions from each section A, B, C, & D

**Section A**

1. Which special property of sound is made use by bats for catching prey and moving from one place to another. ? (1)
2. The frequency of one of the two objects under forced vibration is 512 Hz. What will be the frequency of the second one.? (1)
3. Waves on the surface of water is an example of \_\_\_\_\_ Waves. (1)

**Section B**

4. Complete the table

Transverse Wave	Longitudinal Wave
* Formed on the surface of solids and liquids	* .....
* .....	* Compressions and rare factions are formed

(2)

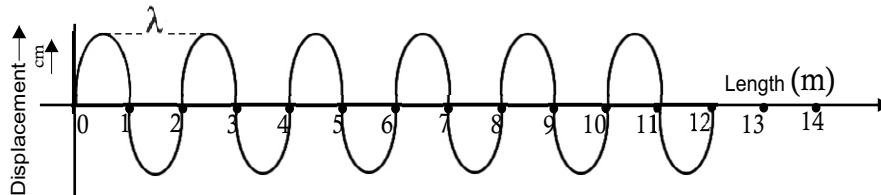
5. Sound waves travel only through air. Do you agree with this statement of Shaji.? Give reasons.? (2)
6. Write the name of two instruments which enable louder sound through multiple reflection. (2)

**Section C**

7. What are the factors that influence the speed of sound through air. (3)
8. What are the conditions to be fulfilled during the constructions of auditoriums and class rooms for clear audibility . (3)
9. Name the type of wave (3)

10.

Section D



- a) Write the total number of crests in the waves .?Also write the number of troughs. ? (1)
  - b) If the waves are formed in 2 seconds, calculate the frequency of these waves & the speed of the waves. (3)
11. The speed of sound through water is 1500 M/S. What should be the minimum distance between the source of sound and reflecting surface to hear and echo inside the water. (4)
12. In an experiment using sonometer a tuning fork is excited and its stem is pressed on the sonometer board. The distance between bridges of sonometer is changed and the experiment repeated .
- a). What happens to the length of the sonometer wire when the distance between sonometer bridges is increased .
  - b). What happens to the frequency? When the length of the wire is increased.?
  - c). What happens when the natural frequency of a tuning fork and sonometer wire are equal.?
  - d). What is resonance. ? (4)