Quarterly Examination 2017-2018

Std. : VII **Full Marks : 80**

Subject : Physics **Time : 2hrs.+15min**

(Section - A)
(Attempt all the questions)

I. Define the following **[10]**

(a) acceleration (b) echo (c) Timbre (d) relative density (e) frequency

II. Fill in the blanks **[5]**

(1) The time period of a simple pendulum depend on its_____.

(2) Sound needs a _____ for propagation.

(3) The weight of a body can be zero when _____ acts on it.

(4) Density of a liquid can be measured by using _____.

(5) The to and fro motion of an object is called_____.

III. Write true or false. Rewrite the false statement. **[10]**

(1) Velocity is the displacement per unit time.

(2) The frequency of a second's pendulum is 1.0 Hz.

(3) Speedometer is used to measure the distance travelled by a vehicle.

(4) Displacement is a scalar quantity.

(5) A hydrometer is a device specially designed to float on a liquid.

(6) The motion of a body falling under gravity is called rectilinear motion.

(7) Density of liquid and gases increases with the nise in temperature.

(8) All humanbeings can hear sounds of frequencies upto 60,000 Hz.

(9) Larger is the amplitude, lesser is the sound.

(10) A motion that repeats itself after a fixed interval of time is called vibratory motion.

IV. Give the S.I. Unit **[5]**

(1) Density (2) frequency (3) velocity (4) acceleration (5) loudness

V. Match the following and write the correct pair. **[5]**

	A	**B**
(1)	A shriller sound	change in density
(2)	Density	Cm^3
(3)	Unit of time period	A sound of high pitch
(4)	convection current	pitch
(5)	volume	second

VI. Give two example of each type of motion. **[5]**

(1) Linear motion.

(2) Oscillatory motion

(3) periodic motion

(4) curvilinear motion

(5) multiple motion

(Section - B)

(Answer any four questions only)

VII. (1) Why does convection current set in liquids and gases when heated ? [2]

(2) Why does ice float on water. [2]

(3) 3 litres of spirit has a mass of 6kg calculate the density of spirit in [3]

(1) gcm^{-3} (ii) density of spirit in kgm^{-3}

(4) Is speed a vector quantity. Give two example of vector quantity. [1+2]

VII. (1) Distinguish between speed and velocity. [3]

(2) Define SONAR and its uses. [2+2]

(3) Name the three characteristics of sound. [3]

IX. (1) Write the three equation of motion. [3]

(2) The frequency of sound wave is 500 Hz. Find its time period. [2]

(3) Distinguish between noise and music. [3]

(4) Define retardation. [2]

X. (1) What is a second's pendulum. What is its length. [3]

(2) Distinguish between scalar and vector quantities. [2]

(3) Define acceleration due to gravity. Give the numerical value of acceleration due to gravity on earth's surface. [3]

(4) A car starts from rest and is accelerated at the rate of $3ms^{-2}$ for 8 sec. Find the velocity of the car at the end of 8 sec. [2]

XI. (1) How does the time period of a pendulum depend on
a) length of pendulum b) mass of the bob. [4]

(2) What are the different measures to be taken to reduce noise pollution. [3]

(3) Draw a neat and labelled diagram to show the different positions of the bob of an oscillating pendulum. [3]