

# City International School

## First Summative Assessment 2015 - 2016

Date : 09/10/2015

Std : VII

Subject : Physics (Paper I)

Marks : 60

Time : 1 hrs

Answers to this paper must be written on the paper provided separately.

You will not be allowed to write during the first 15 minutes.

This time is to be spent in reading the question paper.

The time given at the head of this paper is the time allowed for writing the answers.

Attempt all questions from Section A and any three questions from Section B.

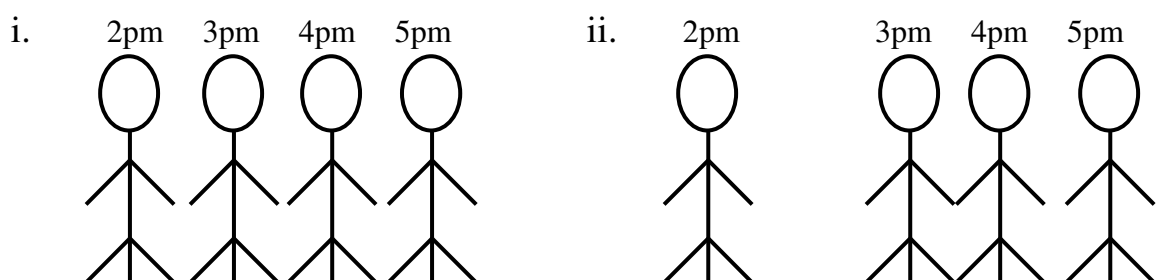
The intended marks for questions or parts of questions are given in brackets. ( )

### SECTION – A (30 MARKS)

Attempt all questions from this section.

- Q. 1**
- Define velocity. (2)
    - What kind of quantity is it? (2)
  - Fill in the blanks. (2)
    - Newton's \_\_\_\_\_ law is also called action and reaction law.
    - \_\_\_\_\_ is an instrument used to measure force.
  - On what factors does momentum depends. (2)
  - What is acceleration? State its unit. (2)
  - What is the relation between acceleration, time, initial and final velocity. (2)

- Q. 2**
- Identify the type of motion. (2)



- Define with respect to a Pendulum. (2)
  - Amplitude
  - Time period
- What is sublimation? Name one solid that sublimates on heating. (2)
- What is gravity? State its numerical value. (2)
- \_\_\_\_\_ is the actual length of path whereas \_\_\_\_\_ is the shortest length in a given direction between two points. (2)

- Q. 3**
- A car travels 400m in 20s. Find its speed. (2)
  - What is a bimetallic strip? Show its with the help of a diagram. (2)

- c. State the type of motion. (2)  
 i. A train passing through a straight tunnel. ii. Swinging of a bell.  
 d. Differentiate between the different types of inertia. (2)  
 e. A body is moving with the same speed but changing the direction continuously. Is it having same velocity? Explain. (2)

### SECTION – B (30 MARKS)

Attempt any three questions in this section.

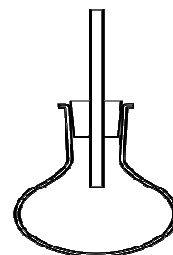
- Q. 4** a. What is thermal equilibrium? (3)  
 b. State the factors that affect the change in melting point and boiling point of liquids. How are these factors related to each other? (4)  
 c. Define. (3)  
 i. Vaporization ii. Solidification iii. Melting

- Q. 5** a. A mango falls down from a tree and reaches the ground after 6 sec. If the gravitational acceleration is  $9.8\text{m/s}^2$ . Find the velocity of the mango on reaching the ground. (4)  
 b. State Newtons second law of motion and write its mathematical expression. (3)  
 c. An Astronaut goes to the moon and observes Taj Mahal. Will it appear to be in motion to him. Give reason for your observation. (3)

- Q. 6** a. Define the following and give one examples of each. (4)  
 i. Rotatory Motion ii. Vibratory Motion  
 b. Why are there gaps between the rail tracks? (3)  
 c. What is meant by Anomalous Expansion of Water? (4)

- Q. 7** a. What is a thermostat switch? State its working principle. (3)  
 b. A flask is fitted with a narrow glass tube is filled with hot water half way as shown in the figure. The flask is then plunged into cold water? (4)

- i. What happens to the level of water in the glass tube at first? Why?  
 ii. What happens to the level of water in the glass tube after some time? Why?



- c. What force must act on a body of 5kg to produce an acceleration of  $4\text{m/s}^2$ . (3)