



# Primrose Schools

ICSE Curriculum  
(A Unit of Primrose Educational Trust, Chennai)  
An ISO 9001:2015 Certified Institution

## State Purpose of Worksheet – II Term Examination [2018 – 2019]

[KG Class work/Home Assignment/Alternate Class work/Internal Assessment/Continuous Assessment/Unit Test/Cycle Test/Revision Test/Mid Term Examination/Term Examination/Preboard]

<b>Name:</b>	<b>Std: VIII</b>	<b>Subject: Physics</b>
<b>Date:</b>	<b>Term: II</b>	<b>Topic: NA</b>
<b>Maximum Marks: 80</b>	<b>Time Duration: 2 hr</b>	<b>Type of Assessment (if internal assessment): NA</b>

### General Instructions

*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.*

**Section I** is compulsory. Attempt **any four** questions from **Section II**.

The intended marks for questions or parts of questions are given in brackets [ ].

### Section I [40 Marks]

Attempt **all** questions

### Question1

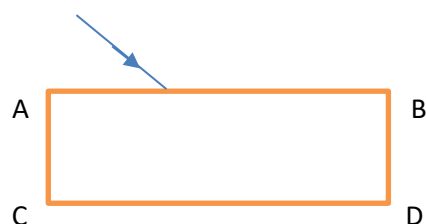
- a) Kiran and his son went to buy a school bag. While the son was choosing fancy bags for himself, Kiran was mainly looking at the straps of the bags.

What do you think Kiran is trying to look in the straps of the bags? Explain the reason.

[2]

- b) Complete the given diagram till the ray emerges out of the glass slab. Also label each ray and angle.

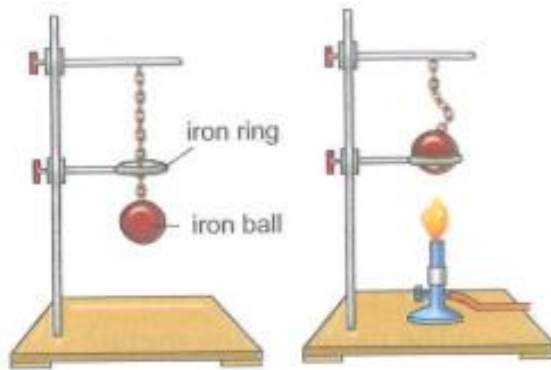
[4]



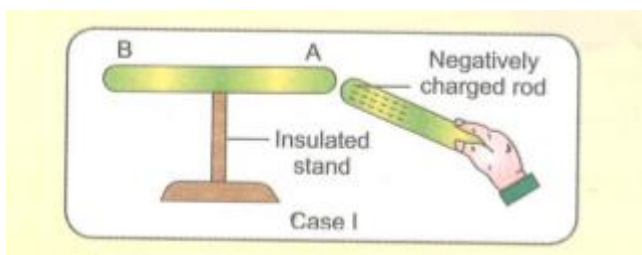
- c) Vinay lifts a textbook weighing 20 N from the floor to a table of height 4 m, how much work does he do ? [2]
- d) Find the relative density of a piece of wood that has mass of 25 g and volume of 29.4 cm<sup>3</sup>. [2]

## Question 2

- a) What is the kinetic energy gained by a ball of mass 400 g when it moves with a speed of  $10 \text{ ms}^{-1}$ . [2]
- b) Observe the image and answer the question.



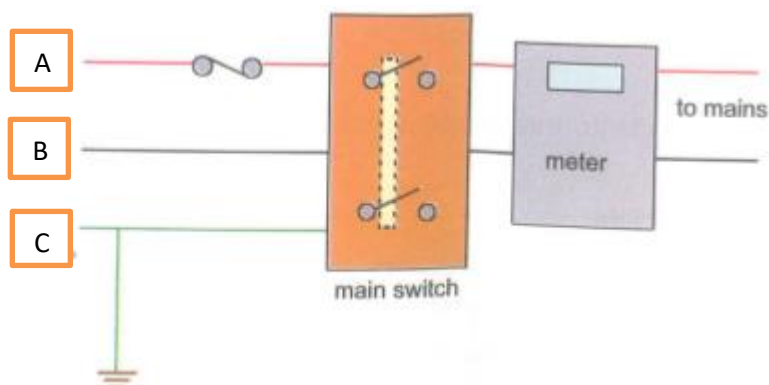
- i) What do you observe in the image? [1]
- ii) Explain the process taking place in the image. [1]
- c) What is meant by triboelectric series? [2]
- d) Write a short note on string instruments. [2]
- e) Look at the given picture and answer the questions.



- (i) Name the method of charging shown in the picture. [1]
- (ii) State the kinds of charges that will develop at the ends A and B . [1]

## Question 3

- a) Identify the live, neutral and earth wires from the diagram by analyzing the colour code of wires. [3]



Given, A) red / brown

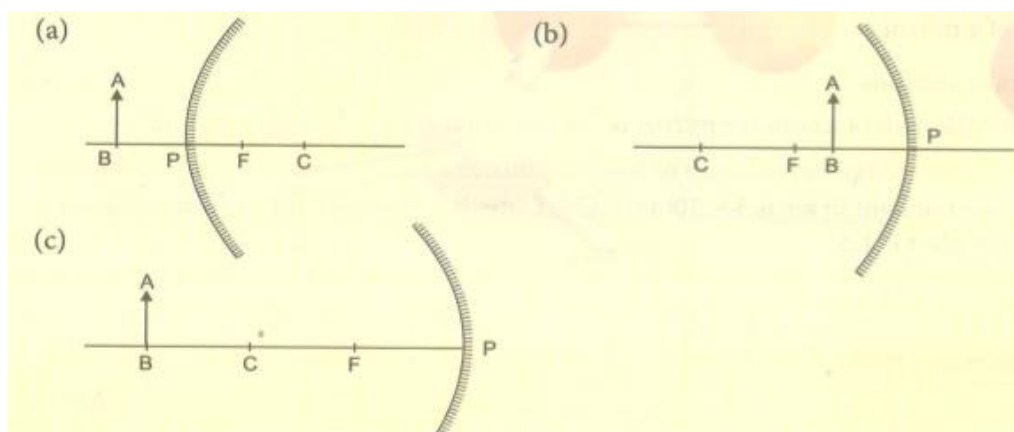
B) black /blue

C) green/yellow

- b) State the laws of electrostatic attraction and repulsion. [2]
- c) How is thermal expansion useful in daily life? Give any three examples. [3]
- d) State the laws of refraction. [2]

#### Question 4

- a) Explain the kinetic theory of matter. [3]
- b) Calculate the moment of force of 10 N applied on an object at a distance of 15 cm from a fixed point. [2]
- c) Complete the following diagrams. Clearly show the image formed in each case. [AB is the object] [3]



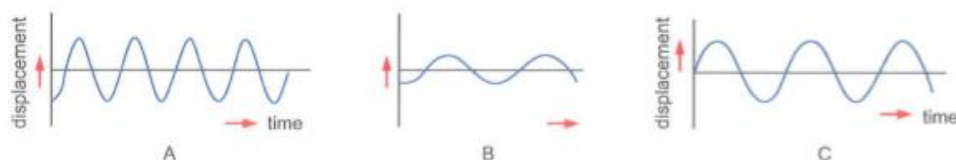
- d) Define coefficient of linear expansion. [2]

#### Section B [40 Marks]

Attempt **any four** questions

#### Question 5

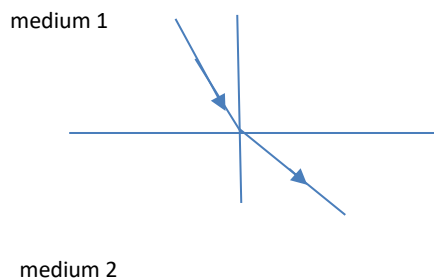
- a) An electric meter showed 08100 in January 2018 and 08880 in March. How many units of energy are consumed in this period? Calculate the cost of electric energy if the cost per unit is ₹3.50 [3]
- b) Answer the following questions on the basis of the graphs A,B,C given below. [4]



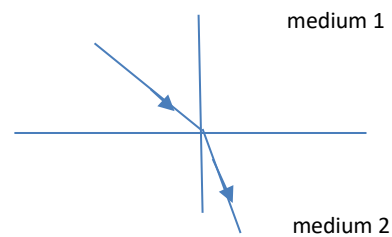
- (i) Which sound wave has the minimum amplitude?
- (ii) Which sound wave has the lowest frequency?
- (iii) Which of the given sounds is the loudest?
- (iv) Which sound has the highest pitch?
- c) Give any two uses of convex mirror. [2]
- d) Define refractive index of a medium. [1]

### Question 6

a) Observe the given diagram carefully and answer the following questions.



(a)



(b)

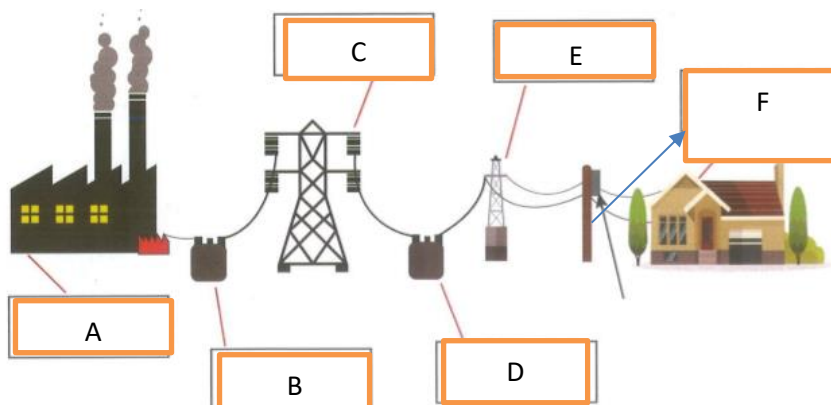
- i) Copy the diagrams (a and b) then label the incident ray, refracted ray, the normal, the angle of incidence and the angle of refraction. [3]
- ii) In which of these diagrams is the ray of light moving from an optically rarer medium to an optically denser medium? [1]
- b) Differentiate between charging by conduction and charging by induction. (minimum 3 points in each) [3]
- c) What is meant by MCB? Explain the use. [2]
- d) A man does 600 J of work for 0.5 minutes. Calculate his power. [1]

### Question 7

- a) Differentiate between power and energy. [minimum 3 points for each] [3]
- b) Draw a neat labeled diagram of gold leaf electroscope. Mention two uses of it. [4]
- c) A water pipe can lift 6 L water per minute to an overhead tank. Find out the potential energy of the water stored in the tank if the height of the tank is 36 m. Take  $g=10 \text{ m/s}^2$ . [3]

### Question 8

- a) Label the given diagram for the transmission of electricity to home. [4]



- b) The focal length of concave mirror is 7.5 cm. What is its radius of curvature? [1]
- c) What is pressure? Write its S.I unit. [2]
- d) Draw a well labeled diagram of prism to show the refraction of light through it. [3]

**Question 9**

- a) What is the pressure exerted by a box of 20 N having an area of cross- section 5 m<sup>2</sup>. [2]
- b) Write a short note on electric fuse in household circuit. [3]
- c) Draw a neat labeled diagram of lightning conductor and explain the use of it. [3]
- d) Why electrical appliances in our household is connected in parallel? [2]