

**KENDRIYA VIDYALAYA IIT CHENNAI**

**SCIENCE HOLIDAY HOMEWORK**

**CLASS IX (2015-16)**

**I. CHEMISTRY**

**1. PROJECT**

Take an earthen pot, some pebbles and sand. Design a small-scale filtration plant that you could use to clean muddy water.

**II. BIOLOGY**

**1. ACTIVITY**

1. Make a herbarium of cereals, pulses and oil seeds and identify the seasons of their sowing and harvesting. (Each 5)

2. OSMOSIS EXPERIMENTS (REFER PAGE NO- 67 IN NCERT TEXT BOOK)

(OR)

Visit a fish farm in fish breeding season and note the following:

- a) Varieties of fish in the ponds
- b) Types of ponds
- c) Feed ingredients being used in the farm
- d) Find out what the production capacity of the farm is.

**III. PHYSICS**

**A) NUMERICALS**

- 1. An athlete completes one round of a circular track of diameter 200 m in 40s. What will be the distance covered and the displacement at the end of 2 minutes 20 s?
- 2. Joseph jogs from one end A to the other end B of a straight 300 m road in 2 minutes 30 seconds and then turns around and jogs 100 m back to point C in another 1 minute. What are Joseph's average speeds and velocities in jogging (a) from A to B and (b) from A to C?

3. Abdul, while driving to school, computes the average speed for his trip to be  $20 \text{ km h}^{-1}$ . On his return trip along the same route, there is less traffic and the average speed is  $30 \text{ km h}^{-1}$ . What is the average speed for Abdul's trip?
4. A motorboat starting from rest on a lake accelerates in a straight line at a constant rate of  $3.0 \text{ m s}^{-2}$  for  $8.0 \text{ s}$ . How far does the boat travel during this time?
5. An artificial satellite is moving in a circular orbit of radius  $42250 \text{ km}$ . Calculate its speed if it takes  $24 \text{ hours}$  to revolve around the earth.