ST THOMAS SCHOOL INDIRAPURAM

HOLIDAY HOMEWORK CLASS IX CHEMISTRY

1. **Write determination of Melting point experiment in your activity file.**
2. **Write determination of Boiling point experiment in your activity file.**

INSTRUCTIONS:

(*i*) ***Write aim,apparatus required,procedure and result in right side of the file.***

(ii) ***Draw table and related diagram in left side.***

3. **Find out more examples of EVAPORATION CAUSES COOLING (10 examples).Write examples with reason in A4 Size sheets.**

ST. THOMAS SCHOOL INDIRAPURAM
PHYSICS HOLIDAY HOMEWORK
CLASS IX

1. (a) Identify the kind of motion in the followingcases:
(i) A car moving with constant speed turning around acurve.
(ii) An electron orbiting around nucleus.
(b) An artificial satellite is moving in a circular orbit of radius 36,000 km. Calculate its speed if it takes 24 hours to revolve around the earth.

2. (a) Define averagespeed.
(b)Abustravelsadistanceof120kmwithaspeedof40km/handreturnswith a speed of 30 km/h. Calculate the average speed for the entirejourney.

3. What does the odometer of an automobile measure? Which of the following is moving faster? Justify youranswer.
(i) A scooter moving with a speed of 300 m per 1minute.
(ii) A car moving with a speed of 36 km perhour.

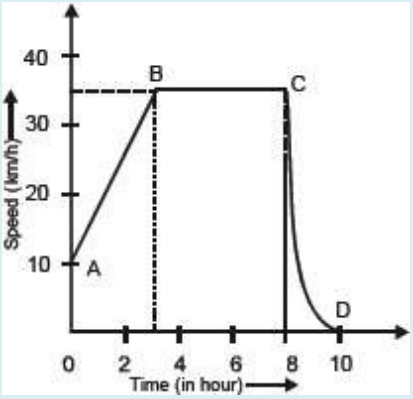
4. AcartravelsfromstopAtostopBwithaspeedof30km/handthenreturnsback to A with a speed of 50 km/h.Find
(i) displacement of thecar.
(ii) distance travelled by thecar.
(iii) average speed of thecar.

5. Velocity-timegraphforthemotionofanobjectinastraightpathisastraightline parallel to the timeaxis.
(a) Identify the nature of motion of thebody.
(b) Find the acceleration of thebody.
(c) Draw the shape of distance-time graph for this type ofmotion.

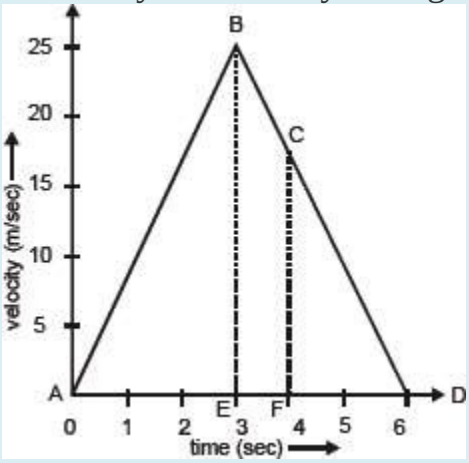
6. A bus accelerates uniformly from 54 km/h to 72 km/h in 10 seconds.Calculate
a) acceleration inm/s^2
b) distance covered by the bus in metres during thisinterval.

7. (a) Differentiate between speed andvelocity.
(b) When is a body said to have uniformvelocity?
(c) How can we describe the position of an object?
Illustrate with suitableexample.

8. The graph given alongside shows how the speed of a car changes withtime.
(i) What is the initial speed of thecar?
(ii) What is the maximum speed attained by thecar?
(iii) Which part of the graph shows zeroacceleration?
(iv) Which part of the graph shows varyingretardation?
(v) Find the distance travelled in first 8hours.



9. Study the velocity-time graph andcalculate.



(a) The acceleration from A toB
(b) The acceleration from B toC
(c) The distance covered in the regionABE
(d) The average velocity from C toD
(e) The distance covered in the regionBCFE

10.A circular track has a circumference of 3140 m with AB as one of its diameter. A scooterist moves from A to B alone the circular path with a uniform speed of 10 m/s.Find

(a) distance covered by thescooterist,
(b) displacement of the scooterist,and
(c) time taken by the scooterist in reaching from A toB.

SUMMER HOLIDAY HOMEWORK

CLASS IX BIOLOGY

Click the following links and watch the video:

- https://youtu.be/cmnhBJKfvNw
- https://youtu.be/bYkF3PIgoBM

Now , try to answer the following questions based on the understanding from the above videos.

- ***Experiment no 1: To prepare a temporary mount of onion peel and study the cells.***

  Q.1__ Why is the onion peel put in water immediately after peeling?

  Q.2__ Why do we stain the peel with safranin?

  Q.3__ What precaution must be taken while putting coverslip on the specimen?

  Q.4__ What will you observe when the slide is viewed under microscope?

  Q.5__ Draw well labeled diagram to show the cells of onion peel.

- ***Experiment no 2. To demonstrate osmosis with the help of egg.***

  Q.1__ Define Osmosis

  Q.2__ Define semi permeable membrane

  Q.3__ How is the egg shell removed in this activity and why?

  Q.4__ What will you observe when the egg is kept in pure water? Give reason.

  Q.5__ What happens when the deshelled egg is placed in concentrated salt solution and why?