

HOLIDAY ASSIGNMENT
SCIENCE

CLASS –IX

PHYSICS:

I. GRAPH:

1. Derive graphically as well as mathematically the following:

a) $s = u + \frac{1}{2}at^2$, b) $v = u + at$, c) $v^2 = u^2 + 2as$

2. Draw the distance - time graph for uniform motion

3. Draw the velocity – time graph for non – uniform motion.

II. PROBLEMS:

4. During an experiment, a signal from a spaceship reached the ground station in 5min. what was the distance of the spaceship from the ground station ? the signal travels at the speed of light, that is $3 \times 10^8 \text{ ms}^{-1}$.

5. A racing car has a uniform acceleration of 4 ms^{-1} . What distance will it cover in 10s. after start.

6. A train traveling at a speed of 90 km h^{-1} . Brakes are applied so as to produce a uniform acceleration of -0.5 ms^{-1} . find how far the train will go before it is brought to rest.

7. A trolley, while going down on an inclined plane has an acceleration of 2 cm s^{-2} . What will be its velocity 3s after the start ?

CHEMISTRY:

III. FILL UPS :

1. In _____ the constituent particles are far apart.

2. In liquids the constituent particles are _____ packed.

3. IN _____ the constituent particles are closely packed.

4. In gaseous state the intermolecular forces are very _____

5. In a _____ the force of attraction is very strong.

6. IN gaseous state the molecules move freely , therefore the _____ fast.

7. The foul smell from sewage is due to _____ of gases.

8. A liquid has an open surface, but a _____ does not have.

9. The _____ causes cooling.

10. _____ state consists of super energetic and super excited particles.

IV. Define – melting point, boiling point, sublimation, evaporation, volatile substance

BIOLOGY : PROJECT & SEMINAR

V. Collect more information on ELECTRON MICROSCOPE – components from net.

