



**ANANDALAYA**  
**PERIODIC TEST – 1**  
**Class : IX**

Subject: Science  
Date: 15/07/2019

M.M : 40  
Time : 2 Hours

**General Instructions:**

1. Question paper consists of two sections, A and B.
2. Section B consists of Multiple Choice Questions.
3. You have to attempt both the sections separately.

**SECTION A**

1. The displacement of a moving object in a given interval of time is zero. Would the distance travelled by the object also be zero? Justify your answer. (1)
2. Define Latent heat of vaporisation. (1)
3. Which cell organelle is known as the power house of the cell and why? (1)
4. (a) Define inertia. (3)  
(b) State the reason for the following:  
(i) All the cars are provided with seat belts.  
(ii) When a carpet is beaten with a stick dust comes out of it.
5. (a) Draw velocity-time graph for uniform motion of an object.. (3)  
(b) A car moves with a velocity of 72km/h in 10s starting from rest. Calculate acceleration and average velocity.
6. (a) Both steel and chalk are solids. What properties of steel make it more useful than chalk in building bridges? (3)  
(b) What is diffusion? Give two examples of this occurring around your house.
7. (a) What is the name given to the change of state from liquid water to steam? (3)  
(b) What happens to liquid water when it is cooled below zero degree Celsius? Has heat moved into or out of the liquid?  
(c) What is the difference between evaporation and boiling?
8. Which are the two cell organelles that have their own genetic material? What advantage do they have compared to the other organelles? (3)
9. A student was given two types of cells which were placed in hypotonic solution. He found that in sample A, after hypotonic treatment, the cells burst and the cells in sample B, looked almost the same after hypotonic treatment. (3)  
(a) Identify the cell samples A and B.  
(b) Name the process involved in the movement of water.  
(c) Why did the cells in sample A burst?

10. (a) Derive the following equations of motion using velocity-time graph. (5)  
(i)  $v = u + at$  (ii)  $s = ut + \frac{1}{2} at^2$   
(b) Write down the condition to derive the given equations.
11. (a) Do we sweat more on a dry day or humid day? Justify your reason. (5)  
(b) Why do we see water droplets on the outer surface of a glass containing ice cold water?  
(c) Convert the following temperature to the Kelvin scale (a)  $25^{\circ}\text{C}$  (b)  $373^{\circ}\text{C}$   
(d) List two properties that liquids have in common with solids.  
(e) List two properties that liquids have in common with gases.
12. Differentiate between plant cells and animal cells by giving five points of difference. (5)

### SECTION B

13. Suppose a boy is enjoying a ride on a merry-go-round which is moving with a constant speed of  $10 \text{ m s}^{-1}$ . It implies that the boy is (1)  
(a) at rest.  
(b) moving with no acceleration.  
(c) in accelerated motion.  
(d) moving with uniform velocity.
14. Which causes the high density of solids? (1)  
(a) The particles are more massive than those in liquids.  
(b) The intermolecular forces between particles are weak.  
(c) The particles are packed closely together.  
(d) The energy of the particles is very high.
15. Which of the following is absent in plant cells? (1)  
(a) Vacuole  
(b) Centriole  
(c) Cell membrane  
(d) Vacuole
16. Well-defined nucleus is absent in (1)  
(a) Plant cells  
(b) Blood cells  
(c) Prokaryotic cells  
(d) Fungal cells