

Class 9 - Science
Test Paper 1

Max Marks: 35

- I. Each question carry 1 mark: 5 marks
1. What is plasmolysis?
 2. Define acceleration of a body. What is its SI unit.
 3. List any two characteristics of particles of matter.
 4. State the function of chromosomes in a cell.
 5. Define Latent heat of fusion.
- II. Each question carry 3 marks: 18 marks
6. How is plasma membrane different from cell wall? How do substances like CO₂ and water move in and out of the cell?
 7. a. Which property of gases help aquatic plants and animals to survive in water. Define it.
b. Melting point of a substance X is 55 °C and that of a substance Y is 85°C . Explain what does it indicate about the strength of the force of attraction between the particles of the two.
 8. A train starting from rest attains a velocity of 144 km/hr in 6 minutes. Assuming that the acceleration is uniform, find:
 - a. The acceleration of the train in SI unit.
 - b. The distance travelled by the train to attain this velocity.
 9. What are the consequences of the following conditions?
 - a. Cell having higher water concentration than surrounding medium.
 - b. A cell having lower water concentration than surrounding medium.
 - c. A cell having equal concentration to its surrounding medium.
 10. Derive second equation of motion graphically.
 11. a. Convert the temperature of 573 K and 370 K to the corresponding Celsius scale.
b. Give reason why
 - (i). Solids lack the property of diffusion.
 - (ii). Evaporation causes cooling.
 - (iii). The temperature of water remains constant during boiling.

III. Each question carry 4 marks:

12 marks

12. Give reason for the following:

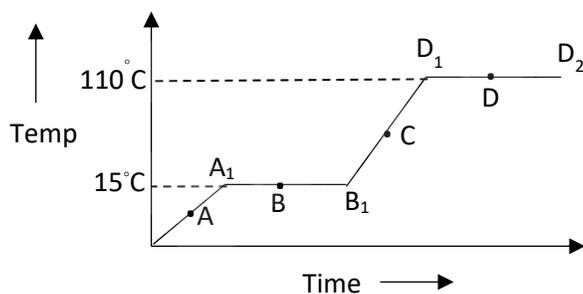
- Inner membrane of mitochondria is deeply folded.
- Plant cells have larger vacuoles than animal cells.

Draw a neatly labelled diagram of prokaryotic cell.

13. A car initially at rest attains a speed of 20m/s in 5s and moves with the same speed for the next 20 s and comes to stop in next 10 s.

- Represent the information in a speed – time graph.
- Find acceleration, retardation.
- Find the total distance covered.
- Calculate the average speed.

14. The temperature time graph given below shows the heating curve for pure wax. Answer the following questions.



- What is the physical state of the substance at points A, B, C and D.
- What is the melting point of the wax?
- What is the boiling point of the wax?
- Which portions of the graph indicate change in state is taking place?
- Name the terms used for heat absorbed during change in states.