INDIAN SCHOOL SOHAR

SET:-I

CLASS - IX | **FORMATIVE ASSESSMENT- 1** | **Time:- 40 Minutes**

12-05-15 | **SCIENCE** | **Marks:-20**

Answer the following:-

1. State the composition of cell membrane. (1)
2. Give an expression for the speed of an athlete if he takes time 't' to go around a circular track of radius 'r'. (1)
3. What is the physical state of water at 0°C? (1)
4. Mention the type of motion exhibited by a freely falling body. (1)
5. A gas fills completely the vessel in which it is kept. Give reason. (1)
6. A bus accelerates uniformly from 54km/h to 72km/h in 10s. Calculate its acceleration. (2)
7. a) Define the term diffusion. (2)

   b) Mention the significance of diffusion for a cell. (Any two points)
8. Explain why heat energy is needed to melt a solid. Define latent heat of fusion. (2)
9. A train covers half of its journey with a speed of 30m/s and the other half with a speed of 40m/s. Calculate the average speed of the train during the whole journey. (3)
10. With the help of a labeled diagram, describe in brief an activity to show sublimation of ammonium chloride. (3)
11. Some organisms have poorly defined nuclear region. (3)

    a) What is this type of undefined nuclear region called?

    b) How can prokaryotes be distinguished from eukaryotes on the basis of chromosome and cell organelles?

    c) State any two functions of the nucleus.

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INDIAN SCHOOL SOHAR

SET:-II

CLASS - IX | **FORMATIVE ASSESSMENT- 1** | **Time:- 40 Minutes**

12-05-15 | **SCIENCE** | **Marks:-20**

Answer the following:-

1. What are chromosomes made up of? (1)
2. Give an example of a motion in which acceleration is negative. (1)
3. What is the physical state of water at 100° C? (1)
4. An object starts with initial velocity 'u' and attains a final velocity 'v'. The velocity of the object is changing at a uniform rate. Write the formula for calculating the average velocity. (1)
5. To get the smell from cold food, we have to go close to it. Give reason. (1)
6. A cyclist takes five round of a circular track of diameter 196m in 25minutes. Calculate his speed. (2)
7. Osmosis is a special case of diffusion. (2)
   a) Define the term Osmosis.
   b) Give two examples of osmosis.
8. Explain why heat energy is needed to boil a liquid. Explain latent heat of vaporization. (2)
9. a) A car is moving with an acceleration of $-20 m/s^2$. If the car takes two seconds to stop after the application of brakes, calculate the velocity with which it was travelling. (3)
   b) A ball thrown vertically upwards rises to a height 'h' metre and comes back to the position of start. Calculate the total distance and total displacement of the ball.
10. With the help of a labeled diagram, demonstrate an activity to show how small are the particles of matter. (3)
11. A student placed a plant cell in solution 'A' and an animal cell in solution 'B'. After an hour student observed that cell was swollen in solution 'A' and shrunken in solution 'B'. (3)
    a) What is the nature of solution 'A' and solution 'B'?
    b) Why cell swells in solution 'A' and shrinks in solution 'B'?

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