**Bhartiyam International School**

**Pre-Mid Term Assessment (2022 -23)**

**Subject: Science**

**Class: IX**

**Date: 18/07/2022 M.M: 40**

**Name: \_\_\_\_\_\_\_\_\_ Roll No.\_\_\_\_ Duration: 90 mins**

**General instructions:-**

* This question paper contains four sections.
* SECTION A consist of five questions of 1 mark each.
* SECTION B consist of five questions of 2 mark each.
* SECTION C consist of five questions of 3 mark each.
* SECTION D consist of two questions of 5 mark each.

**SECTION A (1 x 5=5)**

1. Write down the properties of Suspension?

2. Differentiate between homogeneous and heterogeneous mixtures with examples.

3. **What is the quantity which is measured by the area occupied below the velocity-time graph?**

**4. Can you name the two organelles we have studied that contain their own genetic material?**

**5. What can you say about the motion of an object if its speed-time graph is a straight line parallel to the time axis?**

**SECTION B (2 x 5=10)**

6**. A bus decreases its speed from 80 km h–1 to 60 km h–1 in 5 s. Find the acceleration of the bus.**

7. Why were the scientists not able to observe most of the cell organelles before 1940?

8. Differentiate between rough and smooth endoplasmic reticulum. How is endoplasmic reticulum important for membrane biogenesis?

9. **Where do the lipids and proteins constituting the cell membrane get synthesized?**

**10. During an experiment, a signal from a spaceship reached the ground station in five minutes.**

**What was the distance of the spaceship from the ground station? The signal travels at the speed of light, that is, 3 × 108m s-1.**

**SECTION C ( 3 x 5=15)**

11. Draw a labeled diagram of mitochondria. Write the functions of mitochondria.

12. Explain the effect of temperature on solubility. Why do aquatic species feel more comfortable in the lakes in winter than in summer?

13. What are saturated and unsaturated solutions? Give examples.

14. What do you mean by negative acceleration of a moving object? The brakes applied to a car produce an acceleration of 6 m s-2 in the opposite direction to the motion. If the car takes 2 s to stop after the application of brakes, calculate the distance it travels during this time.

15. i) Derive 2nd equation of motion graphically.

**SECTION D (5 x 2=10)**

16. Draw a plant cell and label the parts which -   
(a) determines the function and development of the cell  
(b) package materials coming, from the endoplasmic reticulum  
(c) provides resistance to microbes to withstand hypotonic external media without bursting  
(d) is site for many biochemical reactions necessary to sustain life  
(e) is a fluid contained inside the nucleus

17. Classify the following into elements, compounds and mixtures.

(a) Sodium (b) Soil (c) Sugar solution (d) Calcium carbonate (e) Tin

(f) Silicon (g) Coal (h) Air (i) Methane (j) Carbon dioxide