

# Summer Holiday Homework

# Subject Enrichment, 2022-23

**Subject:Physics Class: IX**

**Marks: 5**

**General Instructions:**

1. Attempt the answers **on A4 sheets.**
2. Students are required to write their ***Name, Class, Section, Exam Roll no, Subject,*** followedby

***Date*** on the top of every answer sheet.

## Use suitable colours to draw the diagrams.

1. **The last date of submission is 01.08.2022.**
2. The data regarding distance covered with time taken is given below for a SUV, which is being run on a straight road- 2

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Time taken (h) | 0.00 | 0.10 | 0.20 | 0.30 | 0.40 | 0.50 |
| Distance covered (km) | 0 | 5.0 | 10.0 | 15.0 | 20.0 | 25.0 |

i) Plot distance-time graph for the SUV.

ii) Using graphical method, calculate its speed.

1. The velocity of a vehicle in m/s at different times is given below. The vehicle is running on a straight highway. 3

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Velocity (m/s) | 0 | 5 | 10 | 15 | 20 | 25 | 30 |
| Time (s) | 0 | 10 | 20 | 30 | 40 | 50 | 60 |

i) Plot velocity-time graph for the vehicle.

ii) Using graphical method, calculate the magnitude of a) acceleration, b) displacement

\*\*\*\*\*