## St. Vivekanand Public School Sadabad

## Class: XI SCIENCE

Date: 06-01-2023

| S.No | Subject | Questions/Assignment /Paragraphs/Phrase |
| :---: | :---: | :---: |
| 2 | Maths | Q. 1 A point is in the XY-plane. What can you say about its z-coordinate? <br> Q. 2 Find the equation of the set of points $P$, the sum of whose distances from $A(4,0,0)$ and $B(-4,0,0)$ is equal to10. <br> Q. 3 Using section formula ,prove that the three points $(-4,6,10),(2,4,6)$ and (14,0,-2) are collinear. |
| 3 | Chem | Q1. Write structures of various carbocations that can be obtained from 2methylbutane. Arrange these carbocations in order of increasing stability. <br> Q2. What is meant by M-effect. Explain its types with the help of EDG (electron donating groups) and EWD (electron withdrawing groups). |
| 4 | Phy | Q.1A particle is undergoing $S H M$ with amplitude 10 cm . The maximum speed it achieves is $1 \mathrm{~m} / \mathrm{s}$. Find the time it takes to reach from the mean position to half the amplitude. <br> Q. 2 A particle starts from the extreme position, at $t=0$, in a SHM. If the time period of motion is 2 s \& maximum speed is $5 \mathrm{~m} / \mathrm{s}$, find the equation of motion. <br> Q.3What is the amplitude of motion for $x=2 \sin (2 t)+4 \sin ^{2} t$ ? |
| 5 | PHE | Q. 01-Explain the Principles of Biomechanics. <br> Q. 02-Explain types of body movements: <br> Flexion-Extension, Abduction-Adduction, Supination - Pronation, Rotation ,Circumduction. |

