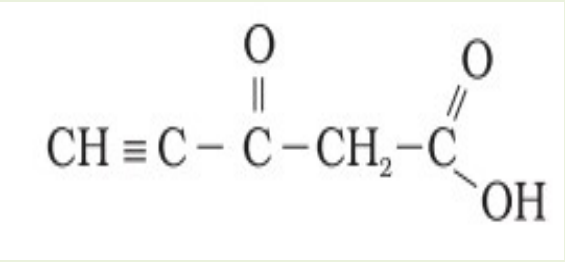
St. Vivekanand Public School Sadabad

Class: XI SCIENCE **Date: 09-01-2023**

S.No	Subject	Questions/Assignment /Paragraphs/Phrase
1	English	**Answer the following questions.** **1. Describe in brief how the grandmother spent half-an-hour with the sparrows. How did she feel then? Answer in the context of The Portrait of a Lady.** **2.How can you infer that the father wishes his son to remain at home with him? {Father to Son}** **3.What was the outcome of the interview between Mrs. Dorling and the narrator? Answer in the context of The Address.** **4.Give a character sketch of Tutankham.** **5.For doctors, the duty towards the patients is foremost, irrespective of their own personal affairs. Discuss with reference to the chapter, Birth.**
2	Maths	**Q.1 Find the derivative of $f(x) = x^3$ using the first principle.** **Q.2 Determine the derivative of** $\frac{\cos x}{1+\sin x}$ **Q.3 Find the limit :** $\lim_{x \to 3}[(x^n - 3^n)/(x-3)]$ **Q.4** Evaluate the limits: **(i)** $\lim_{x \to 0} \frac{\sin 3x}{5x}$ **(ii)** $\lim_{x \to 0} \frac{\sin^2 4x}{x^2}$
3	Chem	**Q1. Using molecular orbital theory, compare the bond energy and magnetic character of O_2^+ and O_2^- species** **Q2. Predict the hybridization of each carbon in the molecule of organic compound given below. Also indicate the total number of sigma and pi bonds in this molecule.** 
4	Phy	**Q.1 A spring of force constant 800N/m has an extension of 5cm. What is the work done in increasing the extension from 5cm to 15cm?**

		Q.2 At a time when the displacement is half the amplitude, what fraction of the total energy is kinetic and what fraction is potential in S.H.M? **Q.3 A particle is executing SHM of amplitude A. At what displacement from the mean position, is the energy half kinetic and half potential?**
5	**PHE**	**Q. 01- Prepare Asanas according to position.** **Q. 02-Learn Yogic kriyas.**
6	**Biology**	**Q1. State the position and role of various kinds of meristems.** **Q2. Why are phloem and xylem known as complex tissues?** **Q3. What is the stomatal apparatus? With the help of diagrammatic representation describe the structure of stomata and label its parts.**

Principal