

- 11 a) The following kinetic data were obtained for an enzyme in the absence of any inhibitor (1) and in the presence of an inhibitor (2) at 5 mM concentration. Assume [ET] is the same in each experiment.

[S] (mM)	1 (No inhibitor) V_o ($\mu\text{mol/ml/sec}$)	2 (with inhibitor) V_o ($\mu\text{mol/ml/sec}$)
1	12	4.3
2	20	8
3	29	14
8	35	21
12	40	26

- Determine V_{max} and K_m for the enzyme
- Determine the type of inhibitors and K_i for the inhibitor.

OR

- b) Discuss the use of Poisson distribution to calculate mutation frequency and burst size of phages.
- 12 a) Discuss the different components in the computer and write note on evolution of computers and computer languages.

OR

- b) Discuss about the graphical methods to calculate molecular weight after SDS-PAGE using computers
