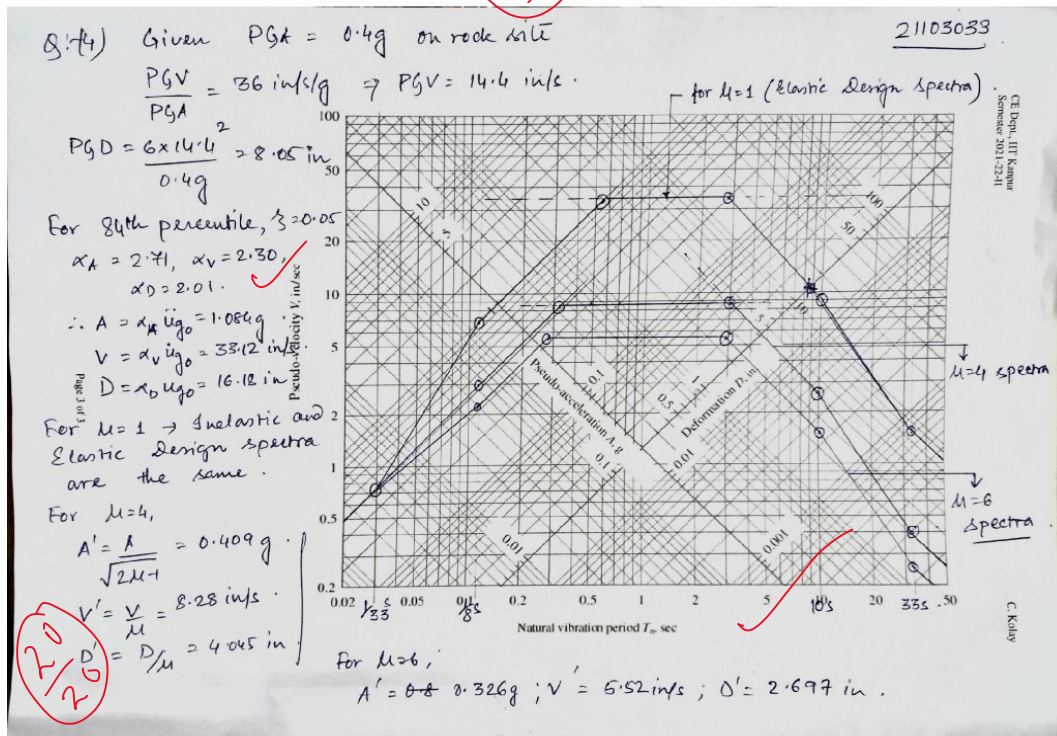


Problem 4

11 January 2022 09:59 AM

Q4) Inelastic Design Spectra:



Applications of Inelastic Design Spectra:

Using the inelastic design spectra, we can evaluate the design yield deformation, the PSA and corresponding to it, the maximum yield force f_y for which we shall design the structure.

Since it is not possible to always undergo a seismic evaluation of the response of structures to various kinds of earthquake loading, we tend to create a general trend taking into consideration an ensemble of various earthquake data and creating a statistical trend. This statistical trend is then employed in calculating the design parameters (which obviously includes certain factors of safety considering it is just a statistical evaluation).

