**Purpose:** PEDStrata function does all of the heavy lifting for the PEDStrata package. This function is used to calculate the overall survey means and variances along with the strata results. Within summary the survey design efficiency and the optimal allocation strategy can also be calculated using the options of this function

**Version Control:** This is it.

**Librarys**: PEDstrata

**Function Arguments Summary**

1. **object**: The survey object which has been processed by PEDstrata.
2. **alpha.t**: width of confidence intervals (1-alpha.t) based on t distrubuted data. Default = 0.05 (95% CI)
3. **effic** Calculate the survey design efficiency. (T/F) Default = FALSE
4. **nopt**: Calculate the optimatal allocation design. (T/F) Default = FALSE
5. ...: Other possible options

**Section 1**

This function takes the output from an object processed by PEDstrata and calculates everything interesting. The survey means and variances along with strata means and variances are calculated here. Optionally, the efficiency and the optimal allocation design can be calculated from the survey data as well. This function is the heart of the Smith and Gavaris 1993.

**Reference**

Smith SJ, Gavaris S, 1993 Improving the Precision of Abundance Estimates of Eastern Scotian Shelf Atlantic Cod from Bottom Trawl Surveys. North Atlantic Journal of Fisheries Management 13:35-47