**Report on Part (C) :**

To analyze the Blood Pressure variable, 500 samples of 150 observations each were generated from the diabetes dataset using bootstrap sampling with replacement. For each sample, the mean, standard deviation, and median were calculated. The average bootstrap mean was recorded as 69.18, whereas the average population value was 69.11. The average bootstrap standard deviation was 19.08, with the population value at 19.36. The bootstrap median was 71.53, while the population median was documented as 72.00. The values being so close to one another reaffirm the ability of bootstrap sampling to provide consistent estimates over population parameters and illustrate how useful it is in assessing the variability of statistical measures taken from random samples.