Problem 6 /20

This question refers to the body\_temps data set, available on Moodle. Use R for all calculations. Include all code used to generate answers.

(a) Which of the following variables are quantitative and which are categorical? What is the level of measurement of each? • Sex (explain in just a sentence or two) • Smoke (no explanation needed) • Temp (explain in just a sentence or two) (b) Find the mean temperature of observations in this set. Also determine the median of this variable. (c) Find the standard deviation of temperatures in this set. Briefly interpret your answer. (d) Determine the five number summary and IQR of Temp. Briefly explain what the IQR represents. (e) What is the  $20^{th}$  percentile of temperatures in this survey?

(f) What percentile is 98.6° in this set? Briefly but clearly explain what this means.