STAT614 CLASSWORK Chapter 7 INFERENCE FOR TWO MEANS

Researches at the University of Mississippi wanted to determine whether the reaction time (in seconds) of males differed from that of females to a go/no go stimulus. The researchers randomly selected 20 females and 15 males to participate in the study. The go/no go stimulus required the student to respond to a particular stimulus and not to respond to other stimuli. The results are as follows;

Female Students

.588, .652, .442, .293, .340, .636, .391, .367, .377, .481, .613, .274,

.646, .403,.377, .380, .403, .617, .434, .443

Male Students

.375, .256, .427, .654, .563, .405, .374, .465, .402, .373, .488, .337, .224, .477,

.655

*Assume that all required conditions for two sample mean test are satisfied*

Use and show R code in order to determine if there is a difference at the significance level of .05.

Construct your null and alternative hypothesis; Find the p-value; Find the t statistic; and indicate the 95% confidence interval.

Lastly, use the p- value in order to decide if you are going to reject the null hypothesis or not.