**Statistics 251: Lab 7 Handout – Inference (Part 2): Confidence Intervals**

First Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Last Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student Number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Students should write the name they are registered with. Do not put nicknames/short forms on the handout. Please write down your answers neatly and do show your work (including R code).

Please use proper notations in your solutions.

Part 1:

R code

|  |  |  |
| --- | --- | --- |
| **sample of size 20 from the given distribution** | **variance is known** | **variance is unknown** |
| Count how many times your confidence interval contains the true mean out of 10,000 repetitions. |  |  |
| Does it match up with what you expect? |  |  |

Part 2:

R code

|  |  |  |
| --- | --- | --- |
| **sample of size 100 from the given distribution** | **variance is known** | **variance is unknown** |
| Count how many times your confidence interval contains the true mean out of 10,000 repetitions. |  |  |
| Does it match up with what you expect? |  |  |