Question 1-

Code-

```
PROC IMPORT DATAFILE =  "\\Client\C$\Users\Cmirwin\Desktop\SMU Data
Sets\case0101.csv"
OUT=ARTDATA
DBMS=csv
REPLACE;
GETNAMES=YES;
RUN;

PROC MEANS DATA = ARTDATA;
CLASS TREATMENT;
VAR SCORE;
RUN;


proc surveyselect data=ARTDATA samprate=0.50 out=Sample outall method=srs
noprint;
run;


PROC MEANS DATA = SAMPLE;
CLASS SELECTED;
VAR SCORE;
RUN;


proc surveyselect data=ARTDATA samprate=0.50 out=Sample2 outall method=srs
noprint;
run;


PROC MEANS DATA = SAMPLE2;
CLASS SELECTED;
VAR SCORE;
RUN;

proc surveyselect data=ARTDATA samprate=0.50 out=Sample3 outall method=srs
noprint;
run;

PROC MEANS DATA = SAMPLE3;
CLASS SELECTED;
VAR SCORE;
RUN;


proc surveyselect data=ARTDATA samprate=0.50 out=Sample4 outall method=srs
noprint;
run;

PROC MEANS DATA = SAMPLE4;
CLASS SELECTED;
VAR SCORE;
RUN;
```

```
proc surveyselect data=ARTDATA samprate=0.50 out=Sample5 outall method=srs
noprint;
run;

PROC MEANS DATA = SAMPLE5;
CLASS SELECTED;
VAR SCORE;
RUN;
```

Results – After running the SurveySelect Proc 5 additional times I found that all the remaining averages had differences that were less than 1.

Question 2

Code –

```
DATA BLOODCONCENTRATION;
INPUT GROUPNAME $ MEASUREMENT;
DATALINES;
A 1.31
A 1.45
A 1.12
A 1.16
A 1.30
A 1.50
A 1.20
A 1.22
A 1.42
A 1.14
A 1.23
A 1.59
A 1.11
A 1.10
A 1.53
A 1.52
A 1.17
A 1.49
A 1.62
A 1.29
B 1.13
B 1.71
B 1.39
B 1.15
B 1.33
B 1.00
B 1.03
B 1.68
B 1.76
B 1.55
B 1.34
B 1.47
```

```
B 1.74
B 1.74
B 1.19
B 1.15
B 1.20
B 1.59
B 1.47
;

PROC SORT DATA = BLOODCONCENTRATION OUT = BLOODCONCENTRATIONSORT;
BY GROUPNAME MEASUREMENT;
RUN;


PROC BOXPLOT DATA=BLOODCONCENTRATIONSORT;
PLOT MEASUREMENT * GROUPNAME;
RUN;

PROC MEANS DATA=BLOODCONCENTRATIONSORT;
BY GROUPNAME;
RUN;
```

Results -

The SAS System

The MEANS Procedure

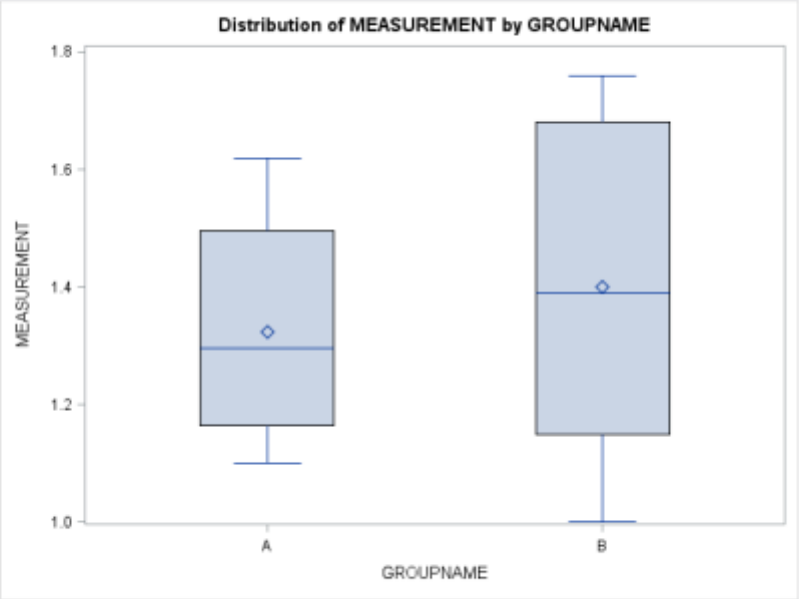
GROUPNAME=A

Analysis Variable : MEASUREMENT				
N	Mean	Std Dev	Minimum	Maximum
20	1.3235000	0.1749970	1.1000000	1.6200000

GROUPNAME=B

Analysis Variable : MEASUREMENT				
N	Mean	Std Dev	Minimum	Maximum
19	1.4010526	0.2572481	1.0000000	1.7600000

The SAS System



Conclusion – In conclusion Group A has a tighter overall distribution as shown by the smaller standard deviation when compared to Group B. Also Group B has a higher average measurement of 1.40 compared to Group A of 1.32.